



303044



September 2, 2005

TO: Mr. Russell Hart, RPM
United States Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

FROM: Mr. David Curnock, PM, SECOR International Incorporated 

RE: **MONTHLY PROGRESS REPORT/MEMORANDUM**
Area 9/10 Remedial Design
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

Copies: Mr. Thomas Turner, Regional Counsel, USEPA Region V
Mr. Scott Moyer, Hamilton Sundstrand/United Technologies Corporation
Ms. Kathleen McFadden, United Technologies Corporation
Mr. Thomas Williams, PM, IEPA
Mr. Terry Ayers, IEPA

CURRENT MONTH PROJECT ISSUES/STATUS: (*activities, meetings, deliverables, etc.*)
Activities conducted in August 2005 consisted of the continuation of Pre-Design Investigation and conceptual design activities. Based on recent discussions between USEPA, IEPA, and SECOR, there are two areas of focus at this time with respect to the Remedial Design. These areas are the former RCRA Outside Container Storage Area (OSA) and the area beneath the Hamilton Sundstrand (HS) Plant #1, up-gradient of the additional monitoring wells installed in the western portion of the South Alley.

A work plan for source mass removal in the OSA was submitted to USEPA and IEPA in April. The work plan provided an analysis of the Pre-Design Investigation data collected to date, the rationale for the source removal effort, and a description of the planned activities. The work plan was approved by USEPA with conditions in a letter dated August 15, 2005. However, it appears that USEPA will not be able to administratively implement this plan in as initially envisioned. USEPA, HS, and SECOR discussed alternatives regarding how to best resolve this issue. HS is presently preparing a proposal to modify some of the text of the Administrative Order on Consent which would provide the administrative means for completion of this work.

The proposed OSA excavation activities are adjacent to and within the Illinois Central Railroad (ICR) easement. The ICR is owned by the Canadian National Railroad. SECOR, on behalf of HS, has begun discussions with ICR for site and contractor access in accordance with ICR requirements. Other activities in August include analytical data review of the initial groundwater field measurements and groundwater samples for electron acceptor and reductive dechlorination parameter analyses. The groundwater samples were shipped to STL located in University Park, Illinois.

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The analytical results will serve as the baseline for site conditions and assist in the calculation of the volume of HRC-X material for placement in accordance with the work plan. The analytical data are provided in Attachment A.

The second area of focus is the area beneath the HS facility identified as a location of potential source material based on down-gradient groundwater monitoring results. The most likely location of the potential source material is associated with the former area of underground storage tanks (USTs) which were in the central portion of the plant south of the loading dock area. With access to the inside of the building unavailable, alternative means have been explored and horizontal drilling appears to be the most effective method of infrastructure installation.

A preliminary conceptual design for horizontal wells and pilot testing letter was submitted to USEPA and IEPA in May 2005. This letter provided an overview of the currently envisioned potential horizontal well and pilot testing treatment corridor. The plan outlined the optimal installation and treatment area without consideration of access constraints (both off-site and on the property).

Pilot testing of the horizontal wells will be a necessary part of the overall remedial design. The horizontal air sparge (AS) and soil vapor extraction (SVE) wells that are planned for pilot testing will likely become part of the final remedial design. This is consistent with a final remedial system design utilizing the Record of Decision (ROD) prescribed technologies for Area 9/10.

Off-site access for horizontal drilling will be required. Access to the property to the south of the plant (2525 11th Street) and beneath the Illinois Central Railroad spur line north of the plant will be necessary. SECOR researched the Winnebago County property records and identified that the property to the south (formerly identified as the DRB property) was sold in December 2004. The property is now held in trust by Amcore Investment Trust #817776. SECOR, in coordination with the HS legal department, plans to identify an authorized representative of this entity and engage the new property owner regarding site access.

The ICR access for horizontal wells will be discussed after approval for the OSA excavation activities are confirmed. The conditional approval of the OSA work plan by USEPA referenced recording the clay cap to be placed over the excavated area as an engineered barrier and institutional control. As a portion of the planned OSA excavation area is property leased from ICR the implications of this requirement need to be more fully discussed prior to further engagement of the railroad for final access approval.

To facilitate the preparation of the work plan for the AS and SVE horizontal well installation and pilot testing, the installation of a horizontal groundwater monitoring well beneath the facility is being proposed. Knowledge of the concentrations of various constituents of concern in groundwater will assist in the pilot test work plan development effort.

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A brief horizontal groundwater monitoring well work plan will be prepared which outlines the scope of work to be undertaken. This brief plan will provide specific well installation, well development, and the baseline sampling to be performed. Prior to submittal of the horizontal monitoring well work plan, the new property owner to the south (2525 11th Street) and ICR will be contacted regarding access for the installation and future operation of the horizontal groundwater monitoring well and other pilot test wells. If successful, this effort will confirm the viability of the optimal locations previously identified. If access is denied or modifications are required, alternate locations and alignments may be developed. The target submittal date for the horizontal groundwater monitoring well work plan has been shifted to October 2005 to allow time to resolve the OSA approval conditions prior to final access discussion with ICR. The data from the horizontal groundwater monitoring well will be used as input for the development of the AS and SVE horizontal well pilot test infrastructure and test procedures. The target date for the submittal of the AS and SVE Horizontal Pilot Test Work Plan is Fall 2005.

The operation and hydrocarbon recovery of LNAPL (JP-4) from the recovery system in the south alley continues. The second quarter 2005 recovery system operational data has been reviewed and compiled. The data is summarized in Table 1. A round of water levels (and product measurements if present) from these wells will be completed in September (third quarter) 2005.

FUTURE PROJECT ISSUES/STATUS: (activities, meetings, deliverables, etc.)

Future project activities anticipated for September 2005 include:

- Complete a round of water levels from the groundwater monitoring network and South Alley Recovery Wells and identify the presence and thickness of product, if present.
- Continue on-going preparation activities for the implementation of the OSA Work Plan for Source Reduction.
- Discussion toward resolution of the administrative issue associated with the approval of the OSA work plan by USEPA/IEPA. Assuming that an acceptable administrative mechanism can be identified and properly approved in a timely manner it is anticipated that this effort will be implemented in Fall 2005.
- Discussion with USEPA/IEPA regarding the conditional approval of the OSA Work Plan associated with the recording of the clay cap as an engineered barrier and institutional control.
- Engage ICR in final site access and approval discussions.
- Upon resolution of the administrative issue associated with the approval of the OSA work plan, SECOR will commence final preparations for completion of the work. These activities will include HRC-X procurement and placement, short term groundwater monitoring to confirm changes in the aquifer electron acceptor concentrations, well abandonment, and secure commitment dates from excavation and transportation contractors for work plan execution.

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- Continue to compile the Pre-Design Investigation data into the Data Summary Report. This report will include boring logs, figures, groundwater flow information, and all laboratory analyses undertaken as part of the Pre-Design Investigation.
- Monitoring and evaluation of LNAPL (JP-4) presence and recovery at the eastern end of the South Alley will continue.
- Engage the new property owner to the south and ICR regarding access for horizontal well installations, pilot test access, and longer term AS and SVE system operation.
- Develop a brief scope of work/work plan for the installation, development, and baseline sampling of a horizontal groundwater monitoring well.

A letter was submitted to the USEPA and IEPA in May which outlined the conceptual horizontal SVE and AS well installation, well alignment, and pilot testing activities in support of future design efforts. Additional discussions, both internally and with the USEPA and IEPA, are anticipated with respect to horizontal drilling and additional pilot testing prior to preparation of a final design.

One topic of these discussions will be the required set back distances and off-site access for horizontal drilling. This issue has the potential to affect the overall design and constructability of a system. Currently, there is a presumption of reasonable access to the off-site property(s). However, the property to the south (formerly identified as the DRB property) located at 2525 11th Street has been sold. The level of cooperation of the new owners could affect current and future access. SECOR will be working along with Tom Williams of IEPA to identify and contact the new owners to initiate continued and additional access to this property as the IEPA also has a monitoring well (MW-127) located on this property.

SAMPLE/TEST DATA SUBMITTALS:

Copies of the OSA electron acceptor and reductive dechlorination parameter analytical sample reports are provided as Attachment A.

RD SCHEDULE UPDATE: (*attach updated schedule as necessary*)

As the activities associated with the Pre-Design Investigation portion of the Remedial Design (RD) continue, the overall schedule continues to be revised. A scope of work concerning the source mass reduction (by excavation) of near surface impacted soils in the OSA was submitted to the USEPA and IEPA in April. Comments on the work plan were received at the end of May and responded to in June. The plan was approved with conditions in August, however, an administrative issue associated with the approval of the work plan has been identified and needs to be resolved. This source mass reduction activity is anticipated to take place upon resolution of this issue and may occur in Fall 2005 if a timely solution can be agreed by all parties.

Access to potential source materials beneath the HS facility building will require the use of horizontal drilling. As mentioned previously, off-site access will be required for implementation of this technique. Access to off-site properties presents a potential to affect

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the schedule for implementation. HS is working on logistical issues associated with this drilling technology and will continue to work with the USEPA on keeping the RD efforts for Area 9/10 moving forward in a timely and reasonable fashion.

REALIZED/ANTICIPATED PROBLEM CONDITIONS:

None.

PERSONNEL CHANGES:

None.

Table 1**Area 9/10, Southeast Rockford Groundwater Contamination Superfund Site****Hamilton Sundstrand
Plant # 1 - South Alley Recovery System**

Month	Summary for Year - 2005						Comments and Notes
	RW-1 Volume of Product Recovered	RW-2 Volume of Product Recovered	RW-3R Volume of Product Recovered	Total Volume Product Recovered	Days System Operational		
January	0	122*	0	0*	31		* A leak in the connection hose at RW-2 allowed water to be recovered by the system. The recovered water was recorded as product by the operator on the documentation form. The connecting hose was repaired in late January 2005.
February	0	0	0	0	28		
March	0	0	0	0	31		
April	0	0	0	0	30		
May	0	0	0	0	31	Well Gauging on May 3, 2005 indicated no measurable product in any of the three recovery wells.	
June	0	0	0	0	30		
July	0	0	0	0	31		
August							
September							
October							
November							
December							

ATTACHMENT A

OSA Electron Acceptor and Reductive Dechlorination Parameter

Analytical Sample Reports

July 2005

SEVERN
TRENT

STL

STL Chicago
2417 Bond Street
University Park, IL 60466

Tel: 708 534 5200 Fax: 708 534 5211
www.stl-inc.com

SEVERN TRENT LABORATORIES ANALYTICAL REPORT

JOB NUMBER: 238013

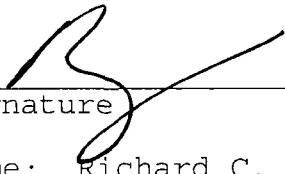
Prepared For:

SECOR
446 Eisenhower Lane North
Lombard, IL 60148

Project: SE Rockford Area 9/10

Attention: Dave Curnock

Date: 07/14/2005


Signature

Name: Richard C. Wright

Title: Project Manager

E-Mail: rwright@stl-inc.com

7/15/05
Date

STL Chicago
2417 Bond Street
University Park, IL 60466

PHONE: (708) 534-5200
FAX...: (708) 534-5211

This Report Contains (33) Pages

STL Chicago
Wet Chemistry Case Narrative

Client: **Secor – SE Rockford**
Job #: **238013**

Date Rec'd: 07/01/05

1. This narrative covers the analysis of the samples in the above Job # for nitrate-nitrogen and sulfate by the methods given on the Laboratory Test Results pages.
2. The established hold times were met. The nitrite needed for the nitrate analysis was done within 48 hours of collection.
3. Initial and continuing calibration standards and blanks that bracketed these samples were within control limits.
4. The method blanks were below the reporting limits.
5. The LCSs analyzed with these samples were within the acceptance limits of 80-120%. Please see the Quality Control Results pages for additional details.
6. The matrix QC was not done on these samples.

Diane L. Harper
Diane L. Harper
Wet Chemistry Section Manager

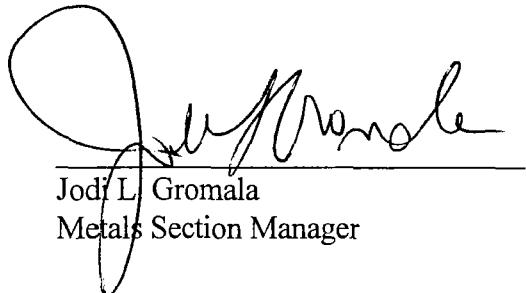
7-7-05
Date

Severn Trent Laboratories - Chicago
METALS CASE NARRATIVE

Client: SECOR
Project: SE Rockford
STL Job #: 238013

Date Rec'd: 07/01/05

1. This narrative covers the Metals analysis of samples in the above Job # 238013.
Method Ref: USEPA, SW-846
2. All analyses were performed within the required holding times.
3. All Initial and Continuing Calibration Verification (ICV/CCV's) were within control limits.
4. All Initial and Continuing Calibration Blanks (ICB/CCB's) were within control limits.
5. All ICP Interference Check Samples (ICSA and ICSAB) were within the 80-120% control limits.
6. All Laboratory Control Sample (LCS) recoveries were within the 80-120% control limits.
7. All Method Blank concentrations were less than the Reporting Limits (RL).
8. Matrix QC was performed on an alternate Job.



Jodi L. Gromala
Metals Section Manager

7-14-05

Date

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S A M P L E I N F O R M A T I O N
Date: 07/14/2005

Job Number.: 238013
Customer...: SECOR
Attn.....: Dave Curnock

Project Number.....: 20003080
Customer Project ID....: SE ROCKFORD
Project Description....: SE Rockford Area 9/10

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
238013-1	ASDM-3-063005	Water	06/30/2005	14:10	07/01/2005	10:45
238013-2	ASDM-4-063005	Water	06/30/2005	14:50	07/01/2005	10:45

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LABORATORY TEST RESULTS												
Job Number: 238013		Date: 07/14/2005										
CUSTOMER: SECOR			PROJECT: SE ROCKFORD				ATTN: Dave Curnock					
Customer Sample ID: ASDM-3-063005 Date Sampled.....: 06/30/2005 Time Sampled.....: 14:10 Sample Matrix.....: Water						Laboratory Sample ID: 238013-1 Date Received.....: 07/01/2005 Time Received.....: 10:45						
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
353.2	Nitrogen, NO ₂ , NO ₃ (Auto Cd Red.) Nitrate as N (NO ₃ -N)	6.2			0.12	0.50	5	mg/L	153711	07/06/05 0958	kd	
375.4	Sulfate, Turbidimetric Sulfate	69			6.8	20	4	mg/L	153756	07/06/05 1053	cls	
6010B	Metals Analysis (ICAP Trace) Iron Manganese Iron, Diss. Manganese, Diss.	97 4.0 0.10 0.024	U		0.034 0.00044 0.034 0.00044	0.10 0.010 0.10 0.010	1 1 1 1	mg/L mg/L mg/L mg/L	153826 153826 154078 154078	07/06/05 1714 07/06/05 1714 07/08/05 1851 07/08/05 1851	tds tds tds tds	

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS												
Job Number: 238013		Date: 07/14/2005										
CUSTOMER: SECOR			PROJECT: SE ROCKFORD			ATTN: Dave Curnock						
Customer Sample ID: ASDM-4-063005 Date Sampled.....: 06/30/2005 Time Sampled.....: 14:50 Sample Matrix.....: Water						Laboratory Sample ID: 238013-2 Date Received.....: 07/01/2005 Time Received.....: 10:45						
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
353.2	Nitrogen, NO ₂ , NO ₃ (Auto Cd Red.) Nitrate as N (NO ₃ -N)	5.1			0.12	0.50	5	mg/L	153711	07/06/05 1000	kd	
375.4	Sulfate, Turbidimetric Sulfate	66			6.8	20	4	mg/L	153756	07/06/05 1054	cls	
6010B	Metals Analysis (ICAP Trace) Iron Manganese Iron, Diss. Manganese, Diss.	190 3.8 0.10 0.085	U		0.034 0.00044 0.034 0.00044	0.10 0.010 0.10 0.010	1 1 1 1	mg/L mg/L mg/L mg/L	153826 153826 154078 154078	07/06/05 1720 07/06/05 1720 07/08/05 1857 07/08/05 1857	tds tds tds tds	

* In Description = Dry Wgt.

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L A B O R A T O R Y C H R O N I C L E

Job Number: 238013

Date: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

Lab ID: 238013-1 Client ID: ASDM-3-063005		Date Recvd: 07/01/2005 Sample Date: 06/30/2005			
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED
3010A	Acid Digestion (ICAP)	1	153644		07/05/2005 1550
EDD	Electronic Data Deliverable	1			
Method	Filtering of Sample in Lab	1	153883		07/07/2005 1655
6010B	Metals Analysis (ICAP Trace)	1	153826	153644	07/06/2005 1714
6010B	Metals Analysis (ICAP Trace)	1	154078	153943	07/08/2005 1851
353.2	Nitrogen, NO ₂ , NO ₃ (Auto Cd Red.)	1	153711	153711	07/06/2005 0958 5
Method	Soluble Non-Digestion Batch	1	153943		07/08/2005 0940
375.4	Sulfate, Turbidimetric	1	153756	153756	07/06/2005 1053 4

Lab ID: 238013-2 Client ID: ASDM-4-063005		Date Recvd: 07/01/2005 Sample Date: 06/30/2005			
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED
3010A	Acid Digestion (ICAP)	1	153644		07/05/2005 1550
Method	Filtering of Sample in Lab	1	153883		07/07/2005 1720
6010B	Metals Analysis (ICAP Trace)	1	153826	153644	07/06/2005 1720
6010B	Metals Analysis (ICAP Trace)	1	154078	153943	07/08/2005 1857
353.2	Nitrogen, NO ₂ , NO ₃ (Auto Cd Red.)	1	153711	153711	07/06/2005 1000 5
Method	Soluble Non-Digestion Batch	1	153943		07/08/2005 0940
375.4	Sulfate, Turbidimetric	1	153756	153756	07/06/2005 1054 4

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 153826

CCB	Continuing Calibration Blank		153826-016		07/06/2005	1618
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	0.03390 U				*
Manganese	mg/L	0.00044 U				Limits F

CCB	Continuing Calibration Blank		153826-028		07/06/2005	1741
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	0.03390 U				*
Manganese	mg/L	0.00044 U				Limits F

CCB	Continuing Calibration Blank		153826-038		07/06/2005	1853
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	0.03390 U				*
Manganese	mg/L	0.00047 B				Limits F

CCB	Continuing Calibration Blank		153826-043		07/06/2005	1926
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	0.05449 B				*
Manganese	mg/L	0.00049 B				Limits F

CCB	Continuing Calibration Blank		153826-055		07/06/2005	2048
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	0.03390 U				*
Manganese	mg/L	0.00050 B				Limits F

CCB	Continuing Calibration Blank		153826-067		07/06/2005	2209
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	0.03390 U				*
Manganese	mg/L	0.00086 B				Limits F

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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CCB	Continuing Calibration Blank			153826-075		07/06/2005 .2308
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value QC Calc. * Limits F
Iron		mg/L	0.03390 U			
Manganese		mg/L	0.00057 B			

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 153826

CCV	Continuing Calibration Verification	M05GCCV001	153826-015				07/06/2005	1609	F
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	24.35836		25.00000		97	%	90-110	
Manganese	mg/L	4.96167		5.00000		99	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	153826-027				07/06/2005	1731	F
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	24.58087		25.00000		98	%	90-110	
Manganese	mg/L	5.02898		5.00000		101	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	153826-037				07/06/2005	1842	F
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	24.56260		25.00000		98	%	90-110	
Manganese	mg/L	5.01685		5.00000		100	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	153826-042				07/06/2005	1918	F
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	24.27859		25.00000		97	%	90-110	
Manganese	mg/L	4.96100		5.00000		99	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	153826-054				07/06/2005	2039	F
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	24.41053		25.00000		98	%	90-110	
Manganese	mg/L	5.01804		5.00000		100	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	153826-066				07/06/2005	2201	F
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	24.34300		25.00000		97	%	90-110	
Manganese	mg/L	5.00883		5.00000		100	%	90-110	

QUALITY CONTROL RESULTS					
Job Number.: 238013		Report Date.: 07/14/2005			
CUSTOMER: SECOR		PROJECT: SE ROCKFORD		ATTN: Dave Curnock	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time
CCV	Continuing Calibration Verification	M05GCCV001	153826-074		07/06/2005 2259
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value QC Calc. * Limits F
Iron	mg/L	24.38916		25.00000	98 % 90-110
Manganese	mg/L	5.01361		5.00000	100 % 90-110

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR		PROJECT: SE ROCKFORD		ATTN: Dave Curnock						
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time				
Test Method.....: 6010B Method Description.: Metals Analysis (ICAP Trace)	Equipment Code....: ICP4 Batch.....: 153826				Analyst...: tds					
CRI	Contract Required Detection Limits	M05FCR1005	153826-012			07/06/2005	1551			
	Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.20507		0.20000		103	%	50-150		
Manganese	mg/L	0.02072		0.02000		104	%	50-150		
CRI	Contract Required Detection Limits	M05FCR1005	153826-039			07/06/2005	1859			
	Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.20484		0.20000		102	%	50-150		
Manganese	mg/L	0.02112		0.02000		106	%	50-150		
CRI	Contract Required Detection Limits	M05FCR1005	153826-071			07/06/2005	2241			
	Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.21034		0.20000		105	%	50-150		
Manganese	mg/L	0.02090		0.02000		104	%	50-150		

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 153826

ICB	Initial Calibration Blank			153826-011			07/06/2005 1544		
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron		mg/L	0.03390	U					
Manganese		mg/L	0.00044	U					

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR PROJECT: SE ROCKFORD ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B Method Description.: Metals Analysis (ICAP Trace)	Equipment Code....: ICP4 Batch.....: 153826	Analyst...: tds
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ICV	Initial Calibration Verification	M05GICV001	153826-010		07/06/2005	1534
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	19.68797		20.00000	98	%
Manganese	mg/L	4.04416		4.00000	101	%

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 153826

ISA	Interference Check Sample A	M05FISA003	153826-013			07/06/2005	1557
	Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc. * Limits F
Iron		mg/L	179.66879		200.00000	90	% 80-120
ISA	Interference Check Sample A	M05FISA003	153826-040			07/06/2005	1905
	Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc. * Limits F
Iron		mg/L	181.29589		200.00000	91	% 80-120
ISA	Interference Check Sample A	M05FISA003	153826-072			07/06/2005	2247
	Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc. * Limits F
Iron		mg/L	178.69363		200.00000	89	% 80-120

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Method Description.: Metals Analysis (ICAP Trace)

Equipment Code....: ICP4

Batch.....: 153826

Analyst...: tds

ISB: Interference Check Sample B M05F1SB003 153826-014 07/06/2005 1603

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	179.91674		200.00000		90	%	80-120	
Manganese	mg/L	0.48034		0.50000		96	%	80-120	

ISB 333 | Interference Check Sample B | M05F1S003 | 153826-041 | 07/06/2005 1911

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	181.26116		200.00000	91		%	80-120	
Manganese	mg/L	0.48749		0.50000	97		%	80-120	

ISB Interference Check Sample B M05F1SB003 153826-073 07/06/2005 2253

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	177.57656		200.00000	89		%	80-120	
Manganese	mg/L	0.47868		0.50000	96		%	80-120	

QUALITY CONTROL RESULTS					
Job Number.: 238013		Report Date.: 07/14/2005			
CUSTOMER: SECOR		PROJECT: SE ROCKFORD		ATTN: Dave Curnock	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time
Test Method.....: 6010B Method Description.: Metals Analysis (ICAP Trace)		Equipment Code....: ICP4 Batch.....: 153826		Analyst...: tds	
LCS	Laboratory Control Sample	M05FSPK001	153644-002		07/06/2005 1630
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value QC Calc. * Limits F
Iron	mg/L	0.96378		1.00000	0.03390 U 96 % 80-120
Manganese	mg/L	0.50595		0.50000	0.00044 U 101 % 80-120

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 153826

MB	Method Blank	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron		mg/L	0.03390	U						
Manganese		mg/L	0.00044	U						

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 154078

CCB	Continuing Calibration Blank		154078-016		07/08/2005	1348
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.12496							H
Manganese	mg/L	0.00044	U						

CCB	Continuing Calibration Blank		154078-020		07/08/2005	1428
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.03390	U						
Manganese	mg/L	0.00044	U						

CCB	Continuing Calibration Blank		154078-032		07/08/2005	1604
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.03390	U						
Manganese	mg/L	0.00044	U						

CCB	Continuing Calibration Blank		154078-043		07/08/2005	1726
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.03390	U						
Manganese	mg/L	0.00044	U						

CCB	Continuing Calibration Blank		154078-050		07/08/2005	1832
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.03390	U						
Manganese	mg/L	0.00044	U						

CCB	Continuing Calibration Blank		154078-062		07/08/2005	1958
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.03390	U						
Manganese	mg/L	0.00044	U						

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
CCB	Continuing Calibration Blank		154078-074		07/08/2005	2137

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.03580	B						
Manganese	mg/L	0.00044	U						

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Method Description.: Metals Analysis (ICAP Trace)

Equipment Code....: ICP4

Batch.....: 154078

Analyst...: tds

CCV	Continuing Calibration Verification	M05GCCV001	154078-015			07/08/2005	1338
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	25.37816		25.00000		102	%	90-110	
Manganese	mg/L	5.01383		5.00000		100	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	154078-019			07/08/2005	1415
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	24.54014		25.00000		98	%	90-110	
Manganese	mg/L	4.99190		5.00000		100	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	154078-031			07/08/2005	1552
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	24.34231		25.00000		97	%	90-110	
Manganese	mg/L	4.94393		5.00000		99	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	154078-042			07/08/2005	1713
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	24.22045		25.00000		97	%	90-110	
Manganese	mg/L	4.93836		5.00000		99	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	154078-049			07/08/2005	1819
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	24.32941		25.00000		97	%	90-110	
Manganese	mg/L	4.90806		5.00000		98	%	90-110	

CCV	Continuing Calibration Verification	M05GCCV001	154078-061			07/08/2005	1945
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	24.63561		25.00000		99	%	90-110	
Manganese	mg/L	5.04571		5.00000		101	%	90-110	

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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CCV	Continuing Calibration Verification	M05GCCV001	154078-073		07/08/2005	2124
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	24.74735		25.00000		99	%	90-110	
Manganese	mg/L	5.01419		5.00000		100	%	90-110	

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Method Description.: Metals Analysis (ICAP Trace)

Equipment Code....: ICP4

Batch.....: 154078

Analyst...: tds

CRI	Contract Required Detection Limits		M05FCR1005	154078-012			07/08/2005 1319		
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.19129		0.20000		96	%	50-150	
Manganese	mg/L	0.01695		0.02000		85	%	50-150	

CRI	Contract Required Detection Limits		M05FCR1005	154078-046			07/08/2005 1756		
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.17859		0.20000		89	%	50-150	
Manganese	mg/L	0.01363		0.02000		68	%	50-150	

CRI	Contract Required Detection Limits		M05FCR1005	154078-070			07/08/2005 2101		
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.18363		0.20000		92	%	50-150	
Manganese	mg/L	0.01407		0.02000		70	%	50-150	

QUALITY CONTROL RESULTS								
Job Number.: 238013			Report Date.: 07/14/2005					
CUSTOMER: SECOR		PROJECT: SE ROCKFORD		ATTN: Dave Curnock				
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time			
Test Method.....: 6010B Method Description.: Metals Analysis (ICAP Trace)		Equipment Code....: ICP4 Batch.....: 154078		Analyst....: tds				
ICB	Initial Calibration Blank		154078-011		07/08/2005 1313			
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	0.03390	U					

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 154078

ICV	Initial Calibration Verification	M05GICV001	154078-010		07/08/2005	1302
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.
Iron	mg/L	19.77077		20.00000	99	% 90-110
Manganese	mg/L	4.01897		4.00000	100	% 90-110

QUALITY CONTROL RESULTS							
Job Number.: 238013				Report Date.: 07/14/2005			
CUSTOMER: SECOR		PROJECT: SE ROCKFORD			ATTN: Dave Curnock		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time	
Test Method.....: 6010B Method Description.: Metals Analysis (ICAP Trace)		Equipment Code....: ICP4 Batch.....: 154078		Analyst...: tds			
ISA	Interference Check Sample A	M05FISA003	154078-013			07/08/2005	1325
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc. * Limits
Iron	mg/L	180.24188		200.00000	90	%	80-120
ISA	Interference Check Sample A	M05FISA003	154078-047			07/08/2005	1802
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc. * Limits
Iron	mg/L	175.26907		200.00000	88	%	80-120
ISA	Interference Check Sample A	M05FISA003	154078-071			07/08/2005	2107
Parameter/Test Description		Units	QC Result	QC Result	True Value	Orig. Value	QC Calc. * Limits
Iron	mg/L	178.83560		200.00000	89	%	80-120

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 154078

ISB	Interference Check Sample B	M05FISB003	154078-014		07/08/2005	1332
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	181.37673		200.00000		91	%	80-120
Manganese	mg/L	0.48091		0.50000		96	%	80-120

ISB	Interference Check Sample B	M05FISB003	154078-048		07/08/2005	1808
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	176.24290		200.00000		88	%	80-120
Manganese	mg/L	0.47062		0.50000		94	%	80-120

ISB	Interference Check Sample B	M05FISB003	154078-072		07/08/2005	2113
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Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
Iron	mg/L	177.63763		200.00000		89	%	80-120
Manganese	mg/L	0.47616		0.50000		95	%	80-120

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR		PROJECT: SE ROCKFORD		ATTN: Dave Curnock	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time

Test Method.....: 6010B Method Description.: Metals Analysis (ICAP Trace)	Equipment Code....: ICP4 Batch.....: 154078	Analyst...: tds
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LCS	Laboratory Control Sample	M05FSPK001	153829-002					07/08/2005	1535
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron	mg/L	0.90332		1.00000	0.03390	U 90	%	80-120	
Manganese	mg/L	0.48633		0.50000	0.00044	U 97	%	80-120	
LCS	Laboratory Control Sample	M05FSPK001	153943-002					07/08/2005	1845
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron, Diss.	mg/L	0.92068		1.00000	0.03390	U 92	%	80-120	
Manganese, Diss.	mg/L	0.48805		0.50000	0.00044	U 98	%	80-120	

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: 6010B

Equipment Code....: ICP4

Analyst...: tds

Method Description.: Metals Analysis (ICAP Trace)

Batch.....: 154078

MB	Method Blank	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron		mg/L	0.03390	U						
Manganese		mg/L	0.00044	U						

MB	Method Blank	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Iron, Diss.		mg/L	0.03390	U						
Manganese, Diss.		mg/L	0.00044	U						

QUALITY CONTROL RESULTS

Job Number.: 238013

Report Date.: 07/14/2005

CUSTOMER: SECOR

PROJECT: SE ROCKFORD

ATTN: Dave Curnock

Test Method.....: 353.2

Batch.....: 153711

Analyst...: kd

Method Description.: Nitrogen, NO₂, NO₃ (Auto Cd Red.)

Equipment Code....: LACHAT1

Test Code.: NO3NO2

Parameter.....: Nitrate + Nitrite as N

QC	Lab ID	Reagent	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	F	*	Limits	Date	Time
ICV	153711-002	I05ASTIC31	mg/L	0.96800		1.00000		97		%	90-110	07/06/2005	0905
ICB	153711-003		mg/L	0.02500 U								07/06/2005	0907
MB	153711-004		mg/L	0.02500 U								07/06/2005	0909
LCS	153711-005	I05ASTIC31	mg/L	0.88100		1.00000	0.02500 U	88		%	80-120	07/06/2005	0911
CCV	153711-014	I05ASTIC31	mg/L	0.95000		1.00000		95		%	90-110	07/06/2005	0929
CCB	153711-015		mg/L	0.02500 U								07/06/2005	0931
CCV	153711-014	I05ASTIC31	mg/L	0.97000		1.00000		97		%	90-110	07/06/2005	0948
CCB	153711-015		mg/L	0.02500 U								07/06/2005	0950
CCV	153711-014	I05ASTIC31	mg/L	0.91000		1.00000		91		%	90-110	07/06/2005	0952
CCB	153711-015		mg/L	0.02500 U								07/06/2005	0954
CCV	153711-014	I05ASTIC31	mg/L	0.89900		1.00000		90		%	90-110	07/06/2005	1002
CCB	153711-015		mg/L	0.02500 U								07/06/2005	1004

Test Method.....: 375.4

Batch.....: 153756

Analyst...: cls

Method Description.: Sulfate, Turbidimetric

Equipment Code....: SPEC3

Test Code.: SO4

Parameter.....: Sulfate

QC	Lab ID	Reagent	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	F	*	Limits	Date	Time
ICV	153756-002	I04KSTSA2	mg/L	18.95000		20.00000		95		%	90-110	07/06/2005	1030
ICB	153756-003		mg/L	1.70000 U								07/06/2005	1031
MB	153756-004		mg/L	1.70000 U								07/06/2005	1032
LCS	153756-005	I04KSTSA2	mg/L	18.76000		20.00000	1.70000 U	94		%	80-120	07/06/2005	1033
CCV	153756-014	I04KSTSA2	mg/L	10.73000		10.00000		107		%	90-110	07/06/2005	1044
CCB	153756-015		mg/L	1.70000 U								07/06/2005	1045
CCV	153756-014	I04KSTSA2	mg/L	18.57000		20.00000		93		%	90-110	07/06/2005	1058
CCB	153756-015		mg/L	1.70000 U								07/06/2005	1059
CCV	153756-014	I04KSTSA2	mg/L	10.25000		10.00000		102		%	90-110	07/06/2005	1112
CCB	153756-015		mg/L	1.70000 U								07/06/2005	1113

Q U A L I T Y A S S U R A N C E M E T H O D S

R E F E R E N C E S A N D N O T E S

Report Date: 07/14/2005

REPORT COMMENTS

- 1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
- 2) Soil, sediment and sludge sample results are reported on a "dry weight" basis except when analyzed for landfill disposal or incineration parameters. All other solid matrix samples are reported on an "as received" basis unless noted differently.
- 3) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
- 4) The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert. ID# 100201
- 5) According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

Glossary of flags, qualifiers and abbreviations (any number of which may appear in the report)

Inorganic Qualifiers (Q-Column)

- U Analyte was not detected at or above the stated limit.
- < Not detected at or above the reporting limit.
- J Result is less than the RL, but greater than or equal to the method detection limit.
- B Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.
- S Result was determined by the Method of Standard Additions.
- F AFCEE: Result is less than the RL, but greater than or equal to the method detection limit.

Inorganic Flags (Flag Column)

- ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed the upper or lower control limits.
- * LCS, LCD, MD: Batch QC exceeds the upper or lower control limits.
- + MSA correlation coefficient is less than 0.995.
- 4 MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
- E SD: Serial dilution exceeds the control limits.
- H MB, EB1, EB2, EB3: Batch QC is greater than reporting limit or had a negative instrument reading lower than the absolute value of the reporting limit.
- N MS, MSD: Spike recovery exceeds the upper or lower control limits.
- W AS(GFAA) Post-digestion spike was outside 85-115% control limits.

Organic Qualifiers (Q - Column)

- U Analyte was not detected at or above the stated limit.
- ND Compound not detected.
- J Result is an estimated value below the reporting limit or a tentatively identified compound (TIC).
- Q Result was qualitatively confirmed, but not quantified.
- C Pesticide identification was confirmed by GC/MS.
- Y The chromatographic response resembles a typical fuel pattern.
- Z The chromatographic response does not resemble a typical fuel pattern.
- E Result exceeded calibration range, secondary dilution required.
- F AFCEE:Result is an estimated value below the reporting limit or a tentatively identified compound (TIC)

Organic Flags (Flags Column)

- B MB: Batch QC is greater than reporting limit.
- * LCS, LCD, ELC, ELD, CV, MS, MSD, Surrogate: Batch QC exceeds the upper or lower control limits.
- EB1, EB2, EB3, MLE: Batch QC is greater than reporting Limit
- A Concentration exceeds the instrument calibration range
- a Concentration is below the method Reporting Limit (RL)
- B Compound was found in the blank and sample.
- D Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
- H Alternate peak selection upon analytical review
- I Indicates the presence of an interference, recovery is not calculated.
- M Manually integrated compound.
- P The lower of the two values is reported when the % difference between the results of two GC columns is

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/14/2005

greater than 25%.

Abbreviations

AS	Post Digestion Spike (GFAA Samples - See Note 1 below)
Batch	Designation given to identify a specific extraction, digestion, preparation set, or analysis set
CAP	Capillary Column CCB Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Confirmation analysis of original
C1	Confirmation analysis of A1 or D1
C2	Confirmation analysis of A2 or D2
C3	Confirmation analysis of A3 or D3
CRA	Low Level Standard Check - GFAA; Mercury
CRI	Low Level Standard Check - ICP
CV	Calibration Verification Standard
Dil Fac	Dilution Factor - Secondary dilution analysis
D1	Dilution 1
D2	Dilution 2
D3	Dilution 3
DLFac	Detection Limit Factor
DSH	Distilled Standard - High Level
DSL	Distilled Standard - Low Level
DSM	Distilled Standard - Medium Level
EB1	Extraction Blank 1
EB2	Extraction Blank 2
EB3	DI Blank
ELC	Method Extracted LCS
ELD	Method Extracted LCD
ICAL	Initial calibration
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ISA	Interference Check Sample A - ICAP
ISB	Interference Check Sample B - ICAP
Job No.	The first six digits of the sample ID which refers to a specific client, project and sample group Lab ID An 8 number unique laboratory identification
LCD	Laboratory Control Standard Duplicate
LCS	Laboratory Control Standard with reagent grade water or a matrix free from the analyte of interest
MB	Method Blank or (PB) Preparation Blank
MD	Method Duplicate
MDL	Method Detection Limit
MLE	Medium Level Extraction Blank
MRL	Method Reporting Limit Standard
MSA	Method of Standard Additions
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not Detected
PREPF	Preparation factor used by the Laboratory's Information Management System (LIMS)
PDS	Post Digestion Spike (ICAP)
RA	Re-analysis of original
A1	Re-analysis of D1
A2	Re-analysis of D2
A3	Re-analysis of D3
RD	Re-extraction of dilution
RE	Re-extraction of original
RC	Re-extraction Confirmation
RL	Reporting Limit
RPD	Relative Percent Difference of duplicate (unrounded) analyses
RRF	Relative Response Factor
RT	Retention Time

Q U A L I T Y A S S U R A N C E M E T H O D S

R E F E R E N C E S A N D N O T E S

Report Date: 07/14/2005

RTW	Retention Time Window Sample ID A 9 digit number unique for each sample, the first six digits are referred as the job number
SCB	Seeded Control Blank
SD	Serial Dilution (Calculated when sample concentration exceeds 50 times the MDL)
UCB	Unseeded Control Blank
SSV	Second Source Verification Standard
SLCS	Solid Laboratory Control Standard(LCS)
PHC	pH Calibration Check LCS pH Laboratory Control Sample
LCDP	pH Laboratory Control Sample Duplicate
MDPH	pH Sample Duplicate
MDFP	Flashpoint Sample Duplicate
LCFP	Flashpoint LCS
G1	Gelex Check Standard Range 0-1
G2	Gelex Check Standard Range 1-10
G3	Gelex Check Standard Range 10-100
G4	Gelex Check Standard Range 100-1000
Note 1: The Post Spike Designation on Batch QC for GFAA is designated with an "S" added to the current abbreviation used. EX. LCS S=LCS Post Spike (GFAA); MSS=MS Post Spike (GFAA)	
Note 2: The MD calculates an absolute difference (A) when the sample concentration is less than 5 times the reporting limit. The control limit is represented as +/- the RL.	

**SEVERN
TRENT**

STL

STL Chicago
2417 Bond Street
University Park, IL 60466

Tel: 708 534 5200 Fax: 708 534 5211
www.stl-inc.com

SEVERN TRENT LABORATORIES ANALYTICAL REPORT

JOB NUMBER: 238014

Prepared For:

SECOR
446 Eisenhower Lane North
Lombard, IL 60148

Project: SE Rockford Area 9/10

Attention: Dave Curnock

Date: 07/18/2005

Signature

Name: Richard C. Wright

Title: Project Manager

E-Mail: rwright@stl-inc.com

Date

7/18/05

STL Chicago
2417 Bond Street
University Park, IL 60466

PHONE: (708) 534-5200
FAX..: (708) 534-5211

This Report Contains (67) Pages

**STL Burlington
Colchester, Vermont**

**Sample Data Summary
Package**

SDG: 238014

**SEVERN
TRENT**

STL

July 18, 2005

Ms. Karen LeClair
Severn Trent Laboratories
2417 Bond St.
University Park, IL 60466

STL Burlington
208 South Park Drive, Suite 1
Colchester, VT 05446

Tel: 802 655 1203 Fax: 802 655 1248
www.stl-inc.com

Re: Laboratory Project No. 25002
Case: ROCKFORD; SDG: 238014

Dear Ms. LeClair:

Enclosed are analytical results for samples that were received by STL Burlington on July 2nd, 2005. This report is sequentially numbered starting with page 0001 and ending with page 0049. Laboratory identification numbers were assigned, and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
Received: 07/02/05 ETR No: 108187			
627556	ASDM-3-063005	06/30/05	Water
627557	ASDM-4-063005	06/30/05	Water

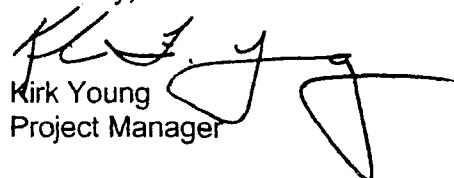
Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Sample Handling section of this submittal.

The samples were analyzed for methane, ethane, and ethene by Method RSK-175. Matrix spike and matrix spike duplicate analyses were not performed on the samples in this sample set. A laboratory control sample was prepared and analyzed in the analytical sequence, and there was an acceptable recovery of each target analyte in that analysis. The method blank that was analyzed in association with the sample was free of contamination.

If there are any questions regarding this submittal, please contact me at (802) 655-1203.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to the requirements specified in the NELAC standard. Release of the data contained in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

Sincerely,



Kirk Young
Project Manager

KFY/hsf
Enclosure

STL Burlington Data Qualifier Definitions

Organic

- U: Compound analyzed but not detected at a concentration above the reporting limit.
- J: Estimated value.
- N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.
- P: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified in project QA plan, the lower of the two values is reported on the Form I.
- C: Pesticide result whose identification has been confirmed by GC/MS.
- B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.
- E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.
- D: Concentrations identified from analysis of the sample at a secondary dilution.
- A: Tentatively identified compound is a suspected aldol condensation product.
- X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

- E: Reported value is estimated due to the presence of interference.
- N: Matrix spike sample recovery is not within control limits.
- * Duplicate sample analysis is not within control limits.
- B: The result reported is less than the reporting limit but greater than the instrument detection limit.
- U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P	ICP-AES
MS	ICP-MS
CV	Cold Vapor AA
AS	Semi-Automated Spectrophotometric



RSK-175

SAMPLE DATA SUMMARY PACKAGE

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

ABLKT4

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Matrix: (soil/water) WATER

Lab Sample ID: ABLKT4

Sample wt/vol: _____ (g/mL) ML

Lab File ID: 14JUL051413-R031

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. _____

Date Analyzed: 07/14/05

GC Column: RTUPLOT ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND		
74-82-8-----	Methane _____	2.0	U
74-84-0-----	Ethane _____	4.0	U
74-85-1-----	Ethene _____	3.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

T4LCS

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Matrix: (soil/water) WATER

Lab Sample ID: T4LCS

Sample wt/vol: _____ (g/mL) ML

Lab File ID: 14JUL051413-R021

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. _____

Date Analyzed: 07/14/05

GC Column: RTUPLOT ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-82-8-----	Methane _____	81	_____
74-84-0-----	Ethane _____	150	_____
74-85-1-----	Ethene _____	140	_____

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Matrix Spike - Sample No.: T4LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Methane	73		81	111	70-130
Ethane	140		150	107	70-130
Ethene	130		140	108	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

ABLKT4

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Lab File ID: 14JUL051413-R031

Lab Sample ID: ABLKT4

Date Analyzed: 07/14/05

Time Analyzed: 1433

GC Column: RTUPLOT ID: 0.32 (mm)

Heated Purge: (Y/N) N

Instrument ID: 2866_1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 T4LCS	T4LCS	14JUL051413-	1429
02 ASDM3-063005	627556	14JUL051455-	1523
03 ASDM4-063005	627557	14JUL051455-	1528
04			
05			
06			
07			
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30			

COMMENTS:

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Instrument ID: 2866_1

Calibration Date(s): 10/28/04 10/28/04

Column: RTUPLOT

ID: 0.32 (mm)

Calibration Time(s): 1340

1400

LAB FILE ID: RF1: 28OCT041316-RRF2: 28OCT041316-RRF3: 28OCT041316-R
RF4: 28OCT041316-RRF5: 28OCT041316-R

COMPOUND	RF1	RF2	RF3	RF4	RF5
Methane	1606.383	1592.000	1531.452	1861.472	1871.915
Ethane	1233.708	1756.588	1739.419	2002.743	1945.744
Ethene	1144.578	1701.219	1671.567	1941.604	1909.080

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Instrument ID: 2866_1

Calibration Date(s) : 10/28/04 10/28/04

Column: RTUPLOT

ID: 0.32 (mm)

Calibration Time(s) : 1340

1400

COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
Methane _____	AVRG	1692.64442	9.5
Ethane _____	AVRG	1735.64060	17.5
Ethene _____	AVRG	1673.60957	19.1

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014

Instrument ID: 2866_1 Calibration Date: 07/14/05 Time: 1424

Lab File ID: 14JUL051413-R0 Init. Calib. Date(s): 10/28/04 10/28/04

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1400

GC Column: RTUPLOT ID: 0.32 (mm)

COMPOUND	RRF	RRF3	MIN RRF	%D	MAX %D
Methane _____	1692.644	1657.603		2.1	30.0
Ethane _____	1735.640	1616.743		6.8	30.0
Ethene _____	1673.610	1450.402		13.3	30.0

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014

Instrument ID: 2866_1 Calibration Date: 07/15/05 Time: 1151

Lab File ID: 15JUL051141-R0 Init. Calib. Date(s): 10/28/04 10/28/04

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1400

GC Column: RTUPLOT ID: 0.32 (mm)

COMPOUND	RRF	RRF3	MIN RRF	%D	MAX %D
Methane	1692.644	1327.205		21.6	30.0
Ethane	1735.640	1297.934		25.2	30.0
Ethene	1673.610	1286.394		23.1	30.0

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

GC Column: RTUPLOT ID: 0.32 (mm) Init. Calib. Date(s): 10/28/04 10/28/04

Instrument ID: 2866_1

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION				RT #	RT #
STLVTB SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED		
01 CAL1	CAL1	10/28/04	1340		
02 CAL2	CAL2	10/28/04	1344		
03 CAL3	CAL3	10/28/04	1349		
04 CAL4	CAL4	10/28/04	1355		
05 CAL5	CAL5	10/28/04	1400		
06 CCV	CCV	07/14/05	1424		
07 T4LCS	T4LCS	07/14/05	1429		
08 ABLKT4	ABLKT4	07/14/05	1433		
09 ASDM3-063005	627556	07/14/05	1523		
10 ASDM4-063005	627557	07/14/05	1528		
11 CCV	CCV	07/15/05	1151		
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19					
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32					

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

**STL Burlington
Colchester, Vermont**

Extended Data Package

SDG: 238014

**SEVERN
TRENT** **STL**

NARRATIVE

0001

July 18, 2005

Ms. Karen LeClair
Severn Trent Laboratories
2417 Bond St.
University Park, IL 60466

STL Burlington
208 South Park Drive, Suite 1
Colchester, VT 05446

Tel: 802 655 1203 Fax: 802 655 1248
www.stl-inc.com

Re: Laboratory Project No. 25002
Case: ROCKFORD; SDG: 238014

Dear Ms. LeClair:

Enclosed are analytical results for samples that were received by STL Burlington on July 2nd, 2005. This report is sequentially numbered starting with page 0001 and ending with page 0049. Laboratory identification numbers were assigned, and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
Received: 07/02/05 ETR No: 108187			
627556	ASDM-3-063005	06/30/05	Water
627557	ASDM-4-063005	06/30/05	Water

Documentation of the condition of the samples at the time of receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Sample Handling section of this submittal.

The samples were analyzed for methane, ethane, and ethene by Method RSK-175. Matrix spike and matrix spike duplicate analyses were not performed on the samples in this sample set. A laboratory control sample was prepared and analyzed in the analytical sequence, and there was an acceptable recovery of each target analyte in that analysis. The method blank that was analyzed in association with the sample was free of contamination.

If there are any questions regarding this submittal, please contact me at (802) 655-1203.

The analytical results associated with the samples presented in this test report were generated under a quality system that adheres to the requirements specified in the NELAC standard. Release of the data contained in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

Sincerely,


Kirk Young
Project Manager

KFY/hsf
Enclosure

STL Burlington Data Qualifier Definitions

Organic

- U: Compound analyzed but not detected at a concentration above the reporting limit.
- J: Estimated value.
- N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.
- P: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified in project QA plan, the lower of the two values is reported on the Form I.
- C: Pesticide result whose identification has been confirmed by GC/MS.
- B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.
- E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.
- D: Concentrations identified from analysis of the sample at a secondary dilution.
- A: Tentatively identified compound is a suspected aldol condensation product.
- X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

- E: Reported value is estimated due to the presence of interference.
- N: Matrix spike sample recovery is not within control limits.
- * Duplicate sample analysis is not within control limits.
- B: The result reported is less than the reporting limit but greater than the instrument detection limit.
- U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P	ICP-AES
MS	ICP-MS
CV	Cold Vapor AA
AS	Semi-Automated Spectrophotometric

0002



RSK-175

QC SUMMARY

0004

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

GC Column: RTUPLOT ID: 0.32 (mm) Init. Calib. Date(s): 10/28/04 10/28/04

Instrument ID: 2866_1

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
STLVTB SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01 CAL1	CAL1	10/28/04	1340		
02 CAL2	CAL2	10/28/04	1344		
03 CAL3	CAL3	10/28/04	1349		
04 CAL4	CAL4	10/28/04	1355		
05 CAL5	CAL5	10/28/04	1400		
06 CCV	CCV	07/14/05	1424		
07 T4LCS	T4LCS	07/14/05	1429		
08 ABLKT4	ABLKT4	07/14/05	1433		
09 ASDM3-063005	627556	07/14/05	1523		
10 ASDM4-063005	627557	07/14/05	1528		
11 CCV	CCV	07/15/05	1151		
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QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Matrix Spike - Sample No.: T4LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Methane	73		81	111	70-130
Ethane	140		150	107	70-130
Ethene	130		140	108	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

ABLKT4

Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014

Lab File ID: 14JUL051413-R031 Lab Sample ID: ABLKT4

Date Analyzed: 07/14/05 Time Analyzed: 1433

GC Column: RTUPLOT ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: 2866_1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 T4LCS	T4LCS	14JUL051413-	1429
02 ASDM3-063005	627556	14JUL051455-	1523
03 ASDM4-063005	627557	14JUL051455-	1528
04			
05			
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COMMENTS:



RSK-175

SUPPORTIVE DOCUMENTATION

0008

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

STLILC SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

ASDM3-063005

Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014

Matrix: (soil/water) WATER Lab Sample ID: 627556

Sample wt/vol: _____ (g/mL) ML Lab File ID: 14JUL051455-R011

Level: (low/med) LOW Date Received: 07/02/05

% Moisture: not dec. Date Analyzed: 07/14/05

GC Column: RTUPLOT ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

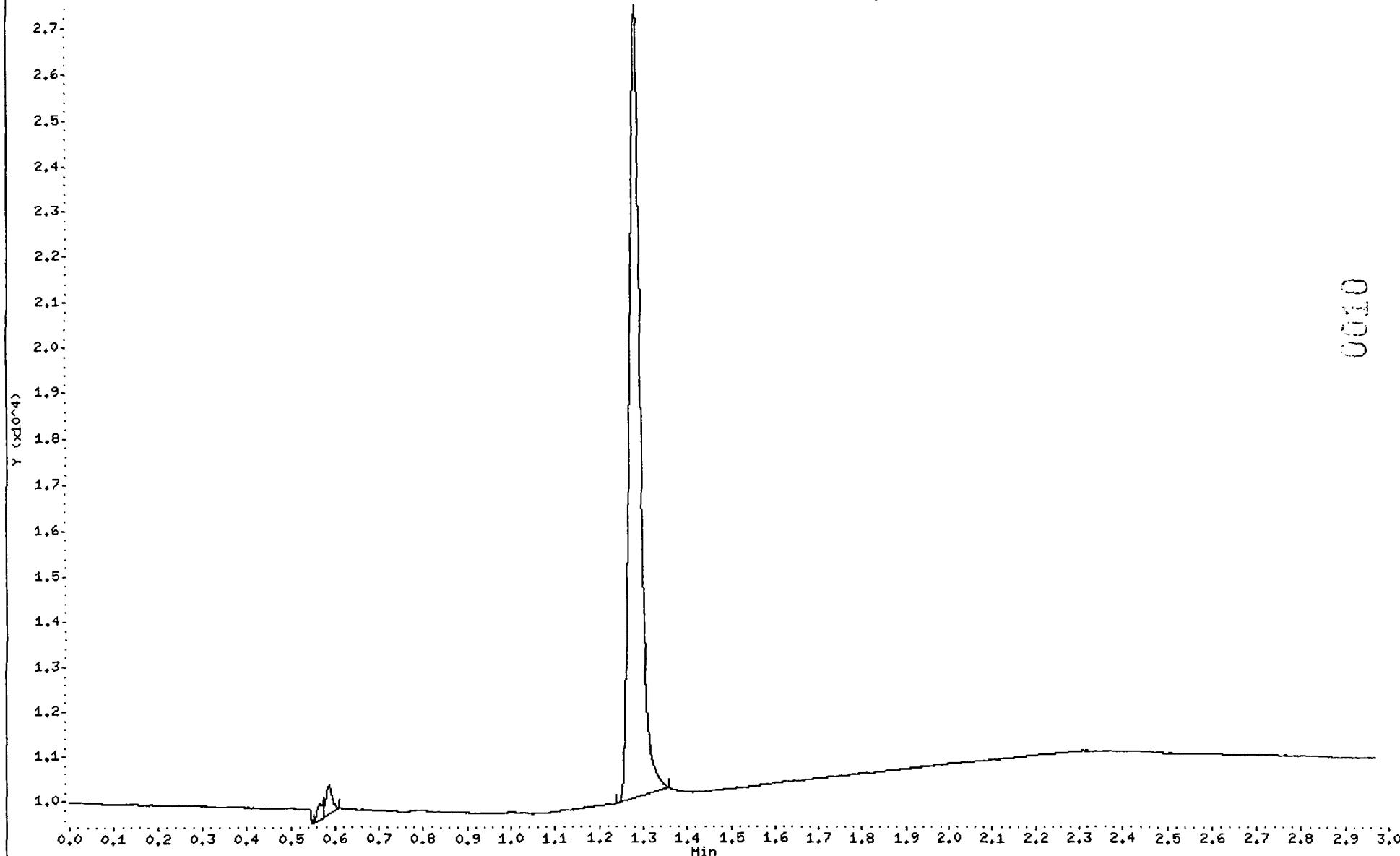
74-82-8-----Methane	2.0	U
74-84-0-----Ethane	4.0	U
74-85-1-----Ethene	3.0	U

Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051455-r011.d
Date : 14-JUL-2005 15:23
Client ID: ASDM3-063005
Sample Info: ASDM-3-063005 :[106/30/05 @1410<Water >
Column phase: RTUPLOT

Page 2

Instrument: 2866_1.i
Operator: JKN
Column diameter: 0.32

/var/chem/2866_1.i/14JUL05RSK.b/14jul051455-r011.d/14jul051455.i011



STL Burlington

Data file : /var/chem/2866_1.i/14JUL05RSK.b/14jul051455-r011.d
Lab Smp Id: 627556 Client Smp ID: ASDM3-063005
Inj Date : 14-JUL-2005 15:23
Operator : JKN Inst ID: 2866_1.i
Smp Info : ASDM-3-063005 : [] 06/30/05 @1410 (Water)
Misc Info :
Comment :
Method : /var/chem/2866_1.i/14JUL05RSK.b/cRSK175.m
Meth Date : 15-Jul-2005 13:58 wbr Quant Type: ESTD
Cal Date : 28-OCT-2004 14:00 Cal File: 28oct041316-r051.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	RT	EXP	RT	DLT	RT	CONCENTRATIONS	
						ON-COLUMN	FINAL
	(ug/L)	(ug/L)					
1 Methane						Compound Not Detected.	
2 Ethene						Compound Not Detected.	
3 Ethane						Compound Not Detected.	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

STLILC SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

ASDM4-063005

Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014

Matrix: (soil/water) WATER

Lab Sample ID: 627557

Sample wt/vol: _____ (g/mL) ML

Lab File ID: 14JUL051455-R021

Level: (low/med) LOW

Date Received: 07/02/05

% Moisture: not dec. _____

Date Analyzed: 07/14/05

GC Column: RTUPLOT ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-82-8-----	Methane _____	2.0	U
74-84-0-----	Ethane _____	4.0	U
74-85-1-----	Ethene _____	3.0	U

Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051455-r021.d

Page 2

Date : 14-JUL-2005 15:28

Client ID: ASDM4-063005

Sample Info: ASDM-4-063005 ;[106/30/05 @1450(Water)

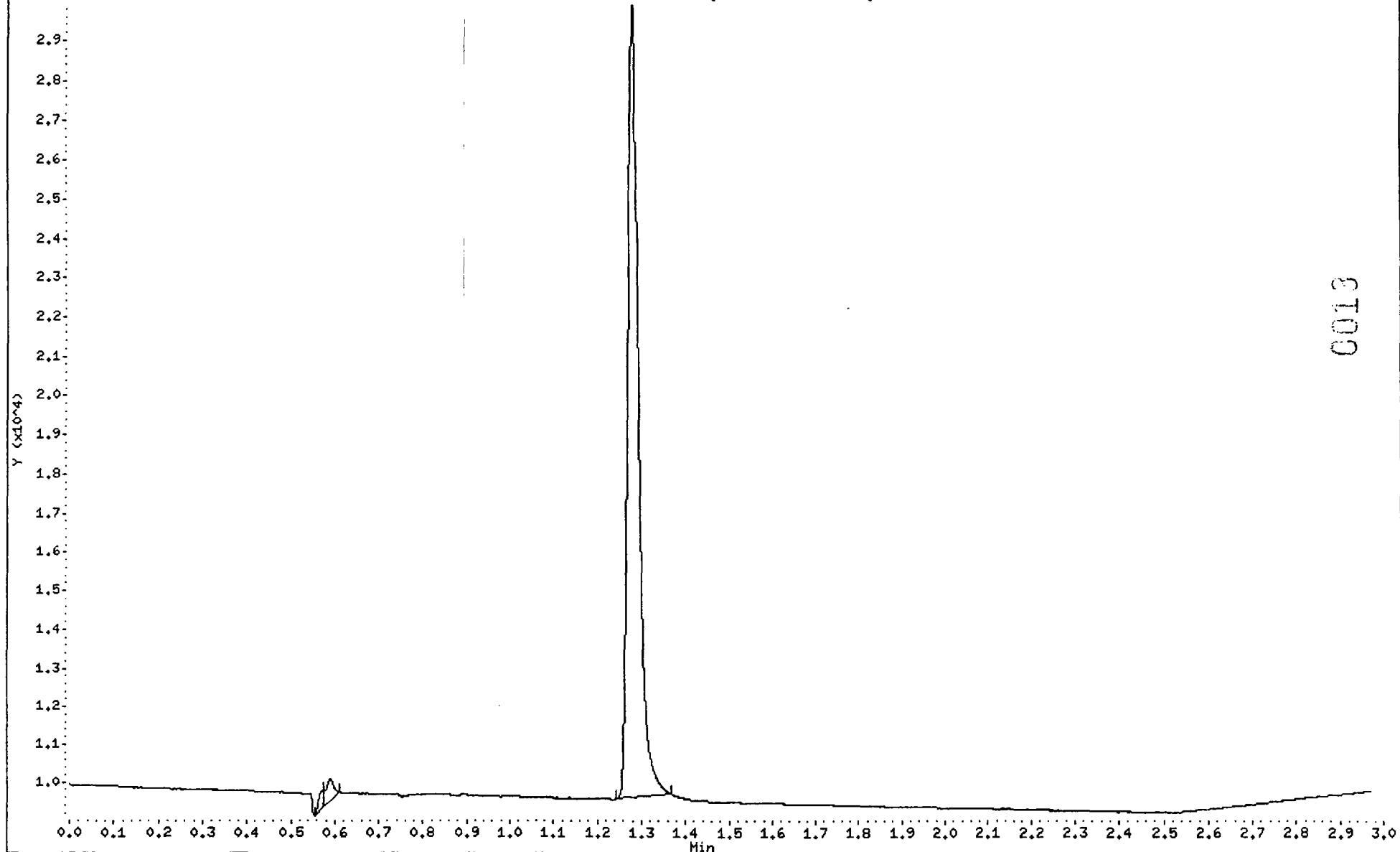
Instrument: 2866_1.i

Operator: JKN

Column diameter: 0.32

Column phase: RTUPLOT

/var/chem/2866_1.i/14JUL05RSK.b/14jul051455-r021.d/14jul051455.i021



Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051455-r021.d Page 1
Report Date: 15-Jul-2005 13:58

STL Burlington

Data file : /var/chem/2866_1.i/14JUL05RSK.b/14jul051455-r021.d
Lab Smp Id: 627557 Client Smp ID: ASDM4-063005
Inj Date : 14-JUL-2005 15:28
Operator : JKN Inst ID: 2866_1.i
Smp Info : ASDM-4-063005 : [] 06/30/05 @1450(Water)
Misc Info :
Comment :
Method : /var/chem/2866_1.i/14JUL05RSK.b/cRSK175.m
Meth Date : 15-Jul-2005 13:58 wbr Quant Type: ESTD
Cal Date : 28-OCT-2004 14:00 Cal File: 28oct041316-r051.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
	==	=====	=====	=====	=====	=====
1 Methane	Compound Not Detected.					
2 Ethene	Compound Not Detected.					
3 Ethane	Compound Not Detected.					



RSK-175

STANDARDS

0015

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Instrument ID: 2866_1

Calibration Date(s): 10/28/04 10/28/04

Column: RTUPLOT

ID: 0.32 (mm)

Calibration Time(s): 1340

1400

LAB FILE ID: RF1: 28OCT041316-RRF2: 28OCT041316-RRF3: 28OCT041316-R
RF4: 28OCT041316-RRF5: 28OCT041316-R

COMPOUND	RF1	RF2	RF3	RF4	RF5
Methane	1606.383	1592.000	1531.452	1861.472	1871.915
Ethane	1233.708	1756.588	1739.419	2002.743	1945.744
Ethene	1144.578	1701.219	1671.567	1941.604	1909.080

FORM VI VOA

0016

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Instrument ID: 2866_1

Calibration Date(s): 10/28/04 10/28/04

Column: RTUPLOT

ID: 0.32 (mm)

Calibration Time(s): 1340

1400

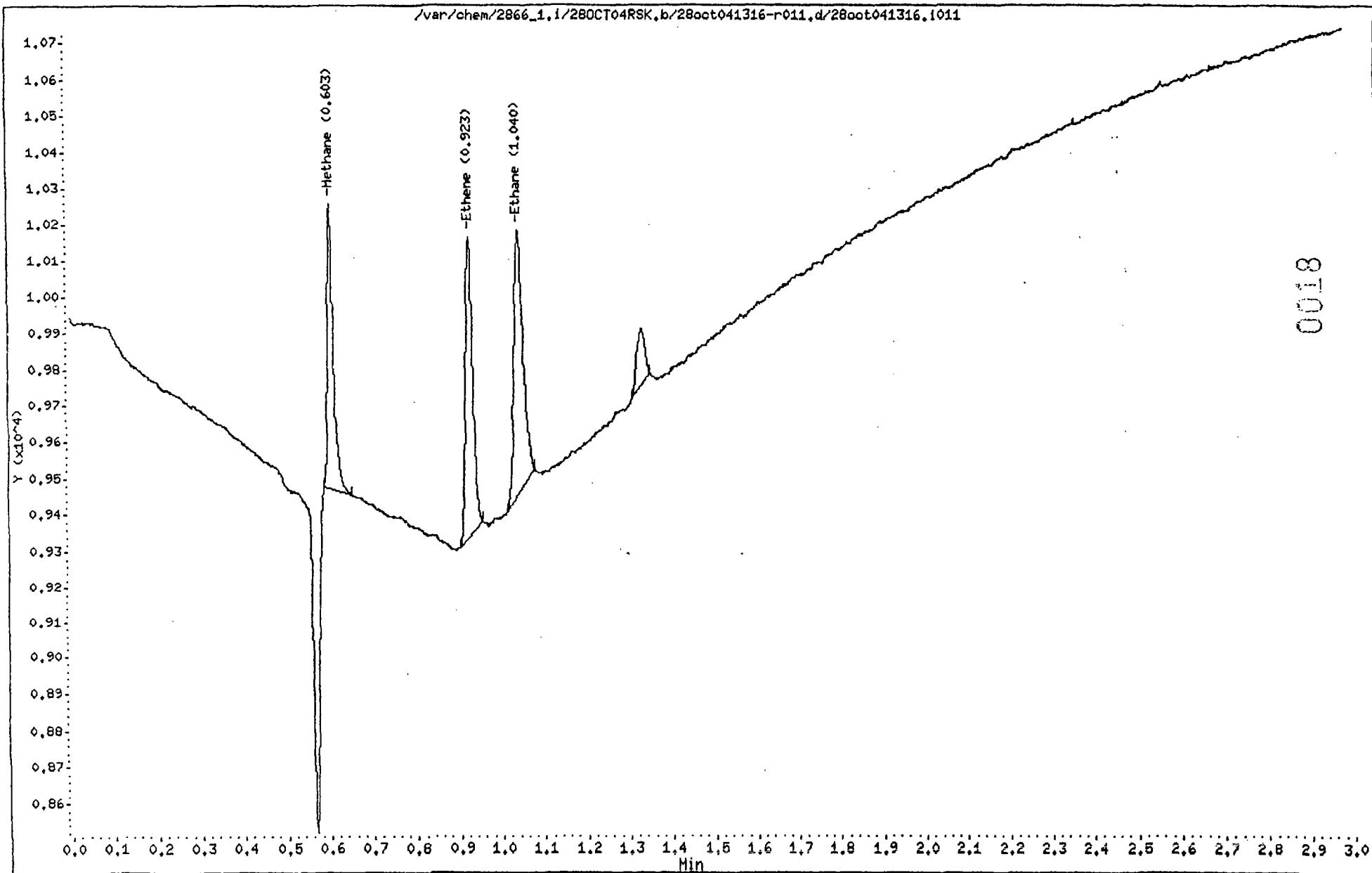
COMPOUND	CURVE	COEFFICIENT A1	%RSD OR R^2
Methane _____	AVRG	1692.64442	9.5
Ethane _____	AVRG	1735.64060	17.5
Ethene _____	AVRG	1673.60957	19.1

Data File: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r011.d
Date : 28-OCT-2004 13:40
Client ID: CAL1
Sample Info: CAL1,1028E6,1

Page 2

Instrument: 2866_1.i
Operator: JKN
Column diameter: 0.32

Column phase: RTUPLOT



Data File: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r011.d Page 1
Report Date: 29-Oct-2004 14:46

STL Burlington

Data file : /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r011.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 28-OCT-2004 13:40
Operator : JKN Inst ID: 2866_1.i
Smp Info : CAL1,1028E6,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/28OCT04RSK.b/cRSK175.m
Meth Date : 29-Oct-2004 14:46 ss1 Quant Type: ESTD
Cal Date : 28-OCT-2004 13:40 Cal File: 28oct041316-r011.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT	ON-COL
					(ug/L)	(ug/L)
1 Methane	0.603	0.644	-0.041	755	0.47000	0.45 (aM)
2 Ethene	0.923	0.977	-0.054	950	0.83000	0.57 (a)
3 Ethane	1.040	1.093	-0.053	1098	0.89000	0.63 (a)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

0019

Data File: /var/chem/2866_1.i/280CT04RSK.b/28oct041316-r021.d

Date : 28-OCT-2004 13:44

Client ID: CAL2

Sample Info: CAL2,1028E6,1

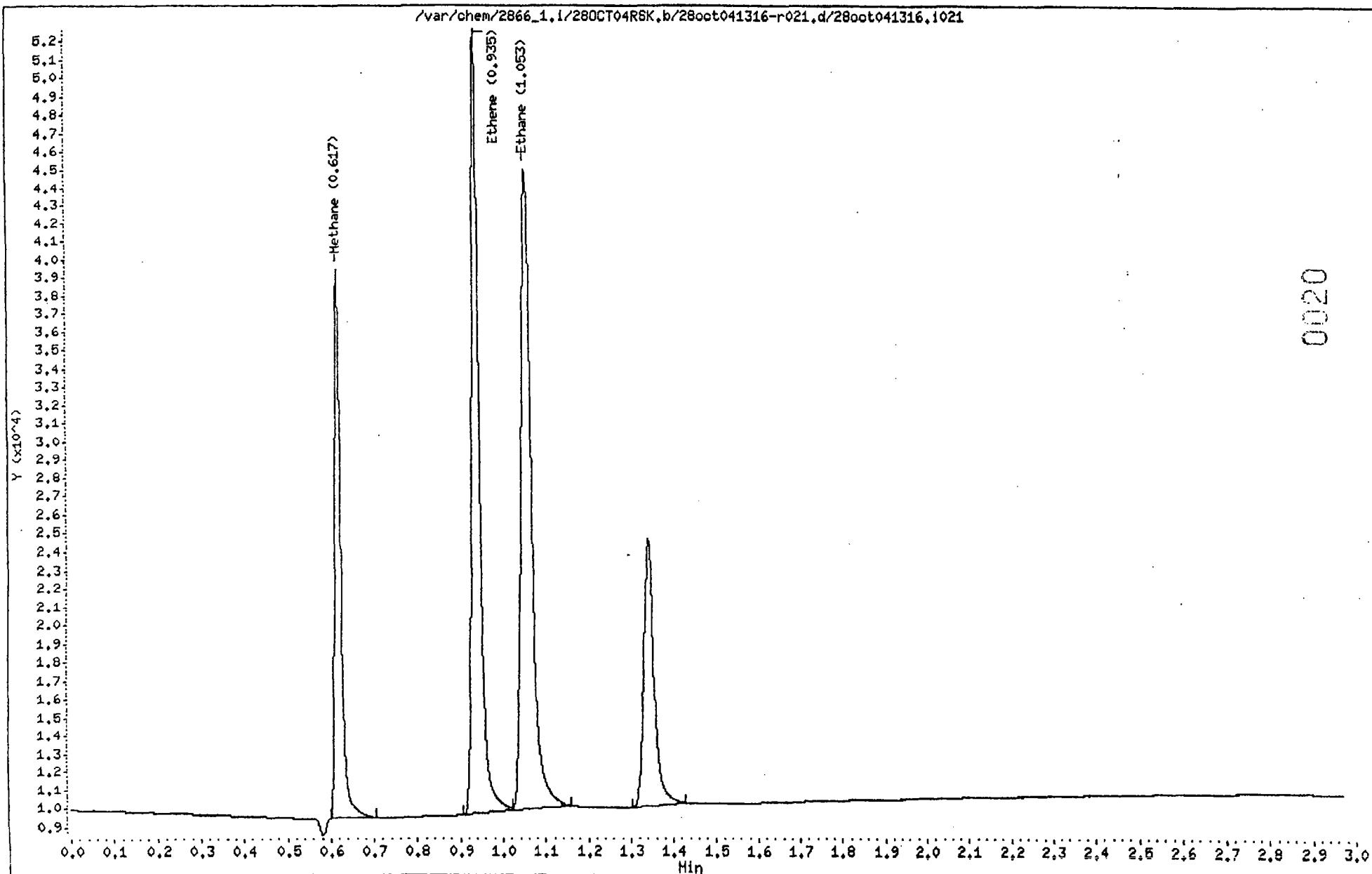
Instrument: 2866_1.i

Operator: JKN

Column diameter: 0.32

Column phase: RTUPLOT

Page 2



Data File: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r021.d Page 1
Report Date: 29-Oct-2004 14:46

STL Burlington

Data file : /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r021.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 28-OCT-2004 13:44
Operator : JKN Inst ID: 2866_1.i
Smp Info : CAL2,1028E6,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/28OCT04RSK.b/cRSK175.m
Meth Date : 29-Oct-2004 14:46 ssl Quant Type: ESTD
Cal Date : 28-OCT-2004 13:44 Cal File: 28oct041316-r021.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT	ON-COL
					(ug/L)	(ug/L)
1 Methane	0.617	0.644	-0.027	28656	18.0000	17 (M)
2 Ethene	0.935	0.977	-0.042	54439	32.0000	32
3 Ethane	1.053	1.093	-0.040	59724	34.0000	34

QC Flag Legend

M - Compound response manually integrated.

0021

Data File: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r031.d

Page 2

Date : 28-OCT-2004 13:49

Client ID: CAL3

Sample Info: CAL3,1028E6,1

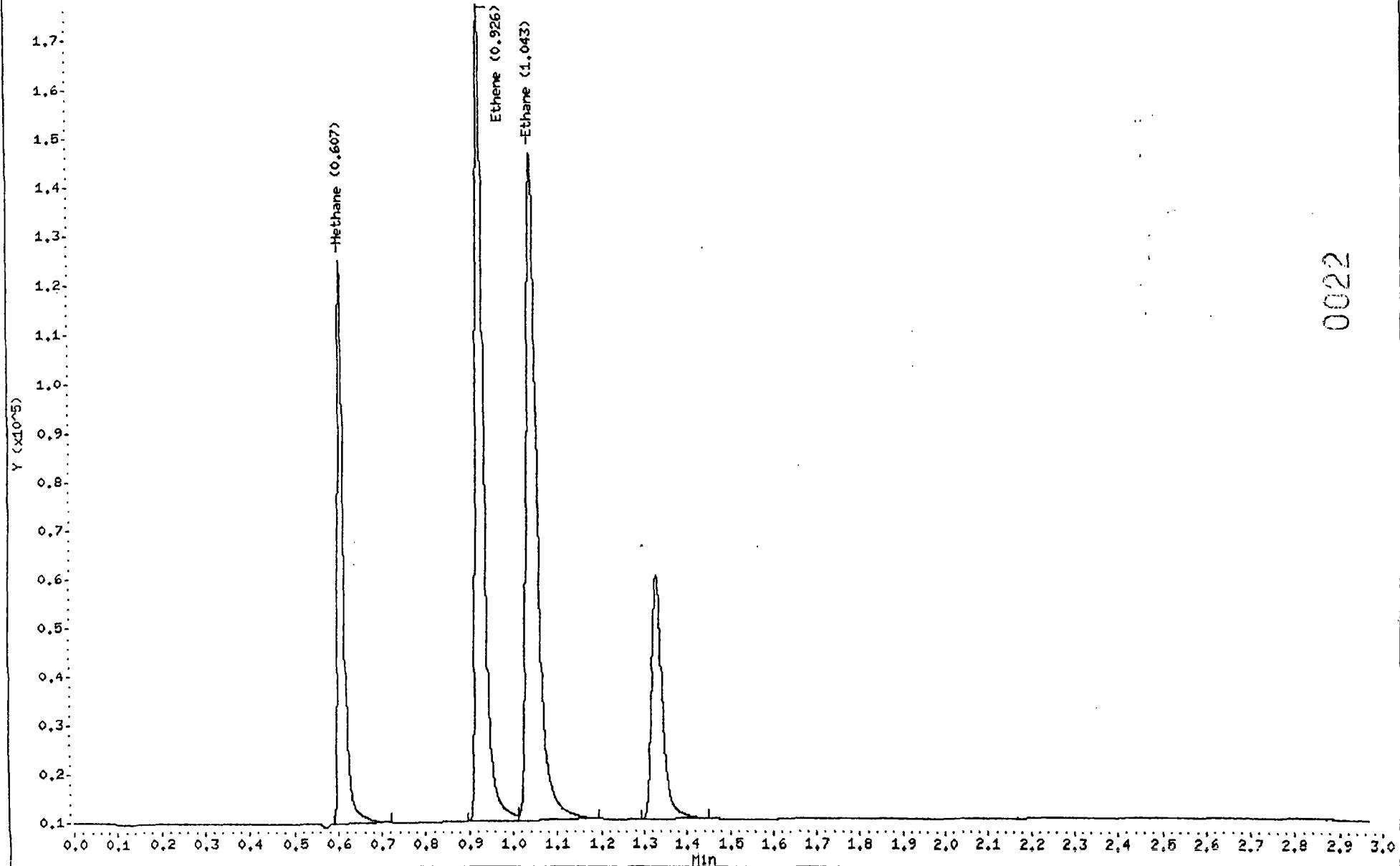
Instrument: 2866_1.i

Operator: JKH

Column diameter: 0.32

Column phase: RTUPLOT

/var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r031.d/28oct041316.1031



Data File: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r031.d Page 1
Report Date: 29-Oct-2004 14:46

STL Burlington

Data file : /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r031.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 28-OCT-2004 13:49
Operator : JKN Inst ID: 2866_1.i
Smp Info : CAL3,1028E6,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/28OCT04RSK.b/cRSK175.m
Meth Date : 29-Oct-2004 14:46 ss1 Quant Type: ESTD
Cal Date : 28-OCT-2004 13:49 Cal File: 28oct041316-r031.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT	ON-COL
					(ug/L)	(ug/L)
1 Methane	0.607	0.644	-0.037	111796	73.0000	66 (M)
2 Ethene	0.926	0.977	-0.051	212289	127.000	130
3 Ethane	1.043	1.093	-0.050	236561	136.000	140

QC Flag Legend

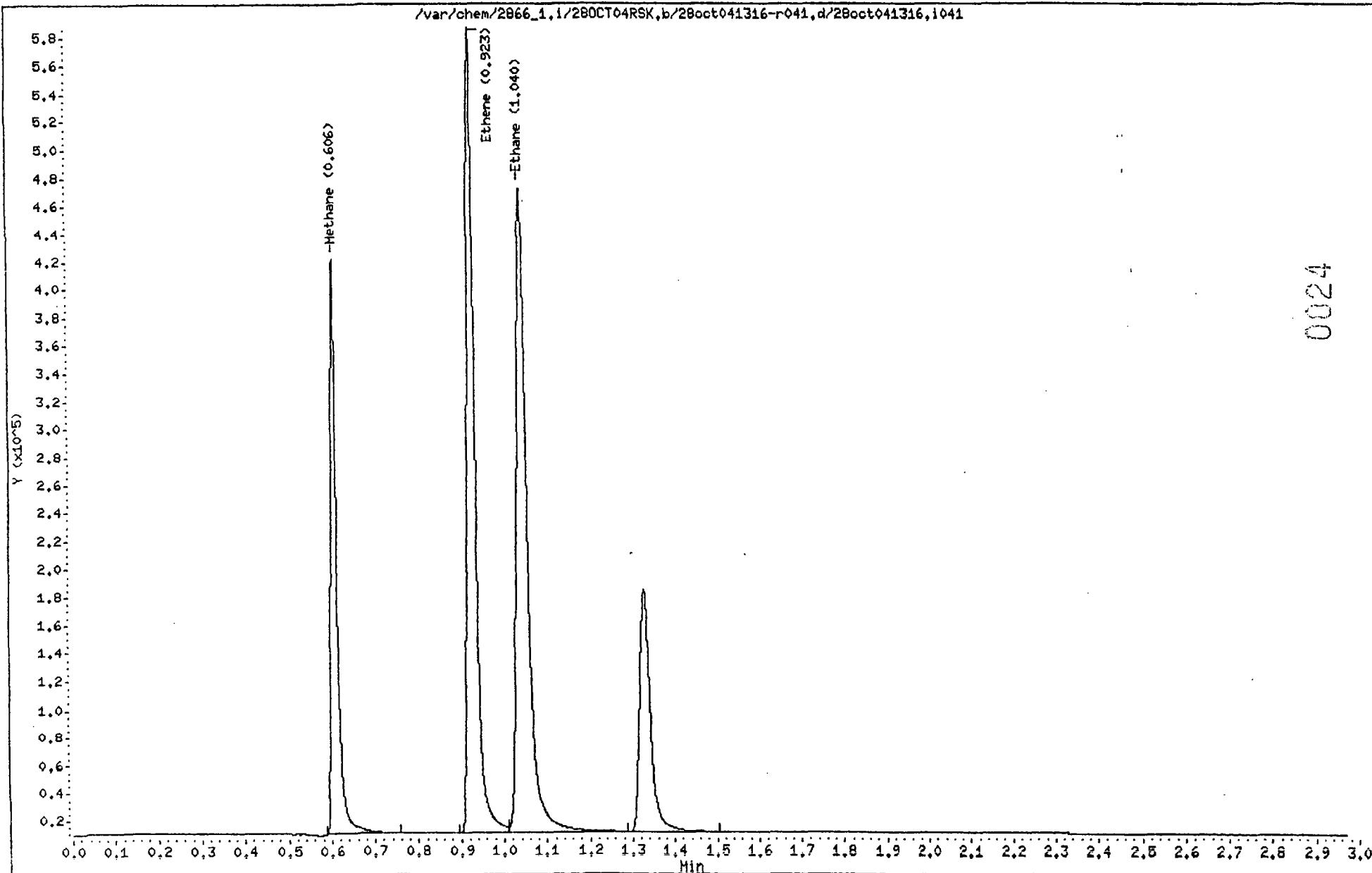
M - Compound response manually integrated.

0023

Data File: /var/chem/2866_1.i/280CT04RSK.b/28oct041316-r041.d
Date : 28-OCT-2004 13:55
Client ID: CAL4
Sample Info: CAL4,1028E6,1
Column phase: RTUPLOT

Page 2

Instrument: 2866_1.i
Operator: JKN
Column diameter: 0.32



STL Burlington

Data file : /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r041.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 28-OCT-2004 13:55
Operator : JKN Inst ID: 2866_1.i
Smp Info : CAL4,1028E6,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/28OCT04RSK.b/cRSK175.m
Meth Date : 29-Oct-2004 14:46 ss1 Quant Type: ESTD
Cal Date : 28-OCT-2004 13:55 Cal File: 28oct041316-r041.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/L)	ON-COL. (ug/L)
1 Methane	0.606	0.644	-0.038	405801	218.000	240 (M)
2 Ethene	0.923	0.977	-0.054	739751	381.000	440
3 Ethane	1.040	1.093	-0.053	819122	409.000	470

QC Flag Legend

M - Compound response manually integrated.

0025

Data File: /var/chem/2866_1,1/28OCT04RSK.b/28oct041316-r051.d

Page 2

Date : 28-OCT-2004 14:00

Client ID: CAL5

Sample Info: CAL5,1028E6,1

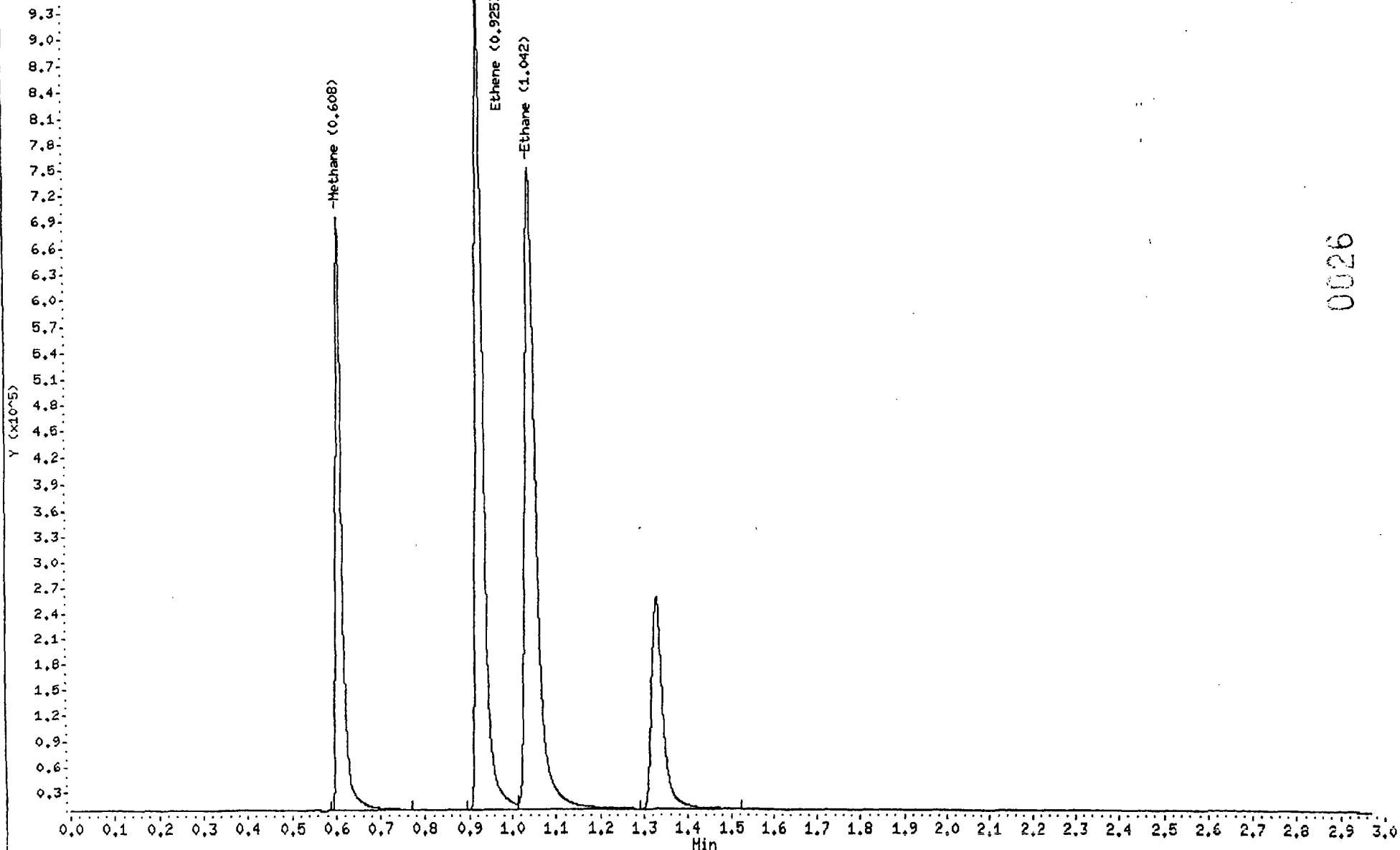
Instrument: 2866_1,1

Operator: JKN

Column diameter: 0.32

Column phase: RTUPLOT

/var/chem/2866_1,i/28OCT04RSK.b/28oct041316-r051.d/28oct041316.i051



Data File: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r051.d Page 1
Report Date: 29-Oct-2004 14:46

STL Burlington

Data file : /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r051.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 28-OCT-2004 14:00
Operator : JKN Inst ID: 2866_1.i
Smp Info : CAL5,1028E6,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/28OCT04RSK.b/cRSK175.m
Meth Date : 29-Oct-2004 14:46 ssl Quant Type: ESTD
Cal Date : 28-OCT-2004 14:00 Cal File: 28oct041316-r051.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	RT	AMOUNTS			
		EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)
1 Methane	0.608	0.644	-0.036	679505	363.000 400 (AM)
2 Ethene	0.925	0.977	-0.052	1214175	636.000 720 (A)
3 Ethane	1.042	1.093	-0.051	1325052	681.000 760 (A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

0027

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 28-OCT-2004 13:40
 End Cal Date : 28-OCT-2004 14:00
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : Falcon
 Method file : /var/chem/2866_1.i/28OCT04RSK.b/cRSK175.m
 Cal Date : 29-Oct-2004 14:46 ssl
 Curve Type : Average

Calibration File Names:

Level 1: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r011.d
 Level 2: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r021.d
 Level 3: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r031.d
 Level 4: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r041.d
 Level 5: /var/chem/2866_1.i/28OCT04RSK.b/28oct041316-r051.d

Compound	1.000	2.000	3.000	4.000	5.000	—	
	Level 1	Level 2	Level 3	Level 4	Level 5	RRP	% RSD
1 Methane	1606	1592	1531	1861	1872	1693	9.535
2 Ethene	1145	1701	1672	1942	1909	1674	19.081
3 Ethane	1234	1757	1739	2003	1946	1736	17.473
5 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 4 Acetylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++

0028

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON Contract: 25002
Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014
Instrument ID: 2866_1 Calibration Date: 07/14/05 Time: 1424
Lab File ID: 14JUL051413-R0 Init. Calib. Date(s): 10/28/04 10/28/04
Heated Purge: (Y/N) N Init. Calib. Times: 1340 1400
GC Column: RTUPLOT ID: 0.32 (mm)

COMPOUND	RRF	RRF3	MIN RRF	%D	MAX %D
Methane_____	1692.644	1657.603		2.1	30.0
Ethane_____	1735.640	1616.743		6.8	30.0
Ethene_____	1673.610	1450.402		13.3	30.0

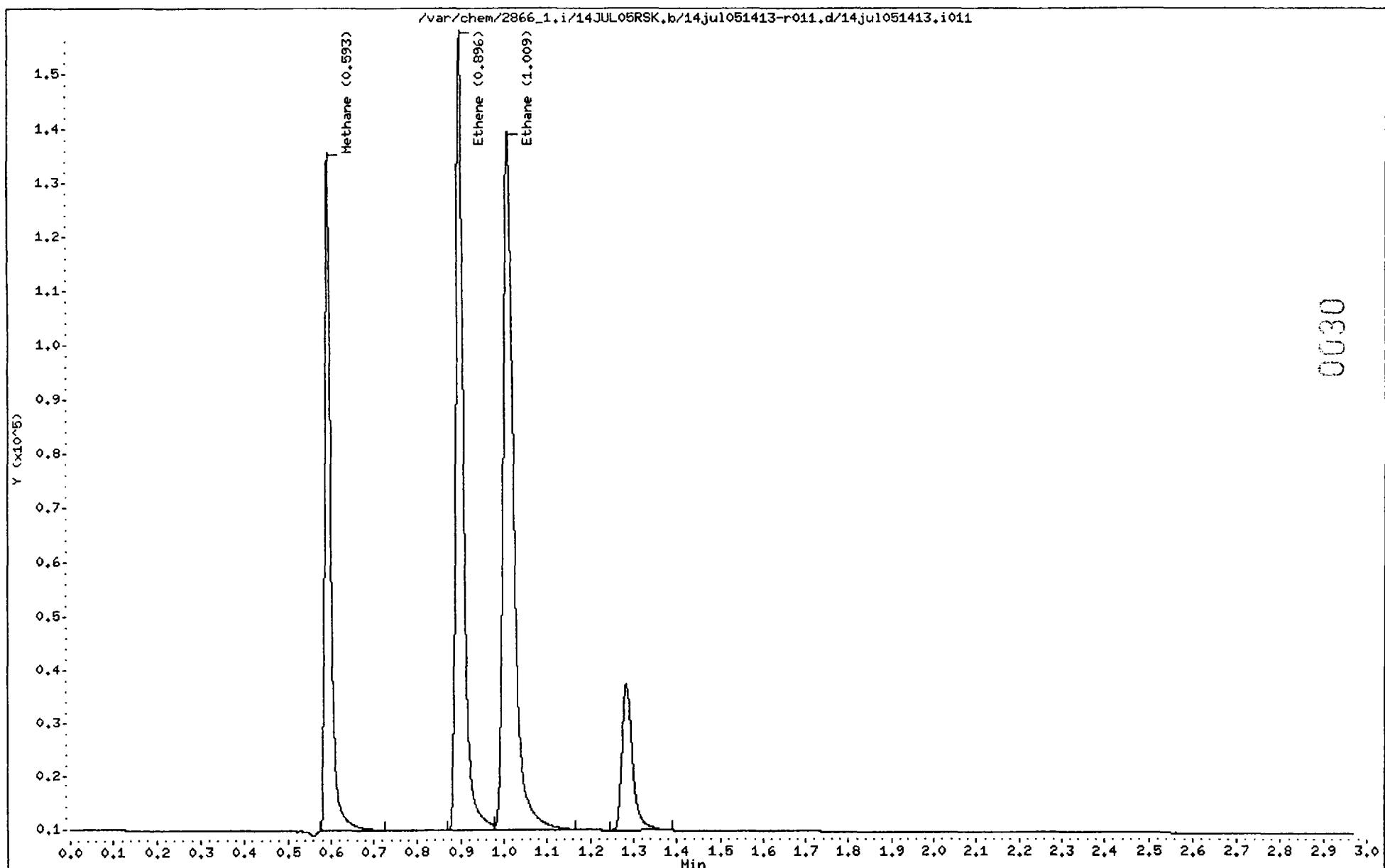
FORM VII VOA

0029

Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r011.d
Date : 14-JUL-2005 14:24
Client ID: CCV
Sample Info: CCV,0714T4,1
Column phase: RTUPL0T

Instrument: 2866_1.i
Operator: JKN
Column diameter: 0.32

Page 2



Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r011.d Page 1
Report Date: 15-Jul-2005 13:58

STL Burlington

Data file : /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r011.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-JUL-2005 14:24
Operator : JKN Inst ID: 2866_1.i
Smp Info : CCV,0714T4,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/14JUL05RSK.b/cRSK175.m
Meth Date : 15-Jul-2005 13:58 wbr Quant Type: ESTD
Cal Date : 28-OCT-2004 14:00 Cal File: 28oct041316-r051.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT	ON-COL
	**	=====	=====	=====	(ug/L)	(ug/L)
1 Methane	0.593	0.605	-0.012	121005	73.0000	71 (M)
2 Ethene	0.896	0.888	0.008	184201	127.000	110
3 Ethane	1.009	0.999	0.010	219877	136.000	130

QC Flag Legend

M - Compound response manually integrated.

0031

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON

Contract: 25002

Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014

Instrument ID: 2866_1 Calibration Date: 07/15/05 Time: 1151

Lab File ID: 15JUL051141-R0 Init. Calib. Date(s): 10/28/04 10/28/04

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1400

GC Column: RTUPLOT ID: 0.32 (mm)

COMPOUND	RRF	RRF3	MIN RRF	%D	MAX %D
Methane _____	1692.644	1327.205		21.6	30.0
Ethane _____	1735.640	1297.934		25.2	30.0
Ethene _____	1673.610	1286.394		23.1	30.0

Data File: /var/chem/2866_1.i/14JUL05RSK.b/15jul051141-r011.d

Page 2

Date : 15-JUL-2005 11:51

Client ID: CCV

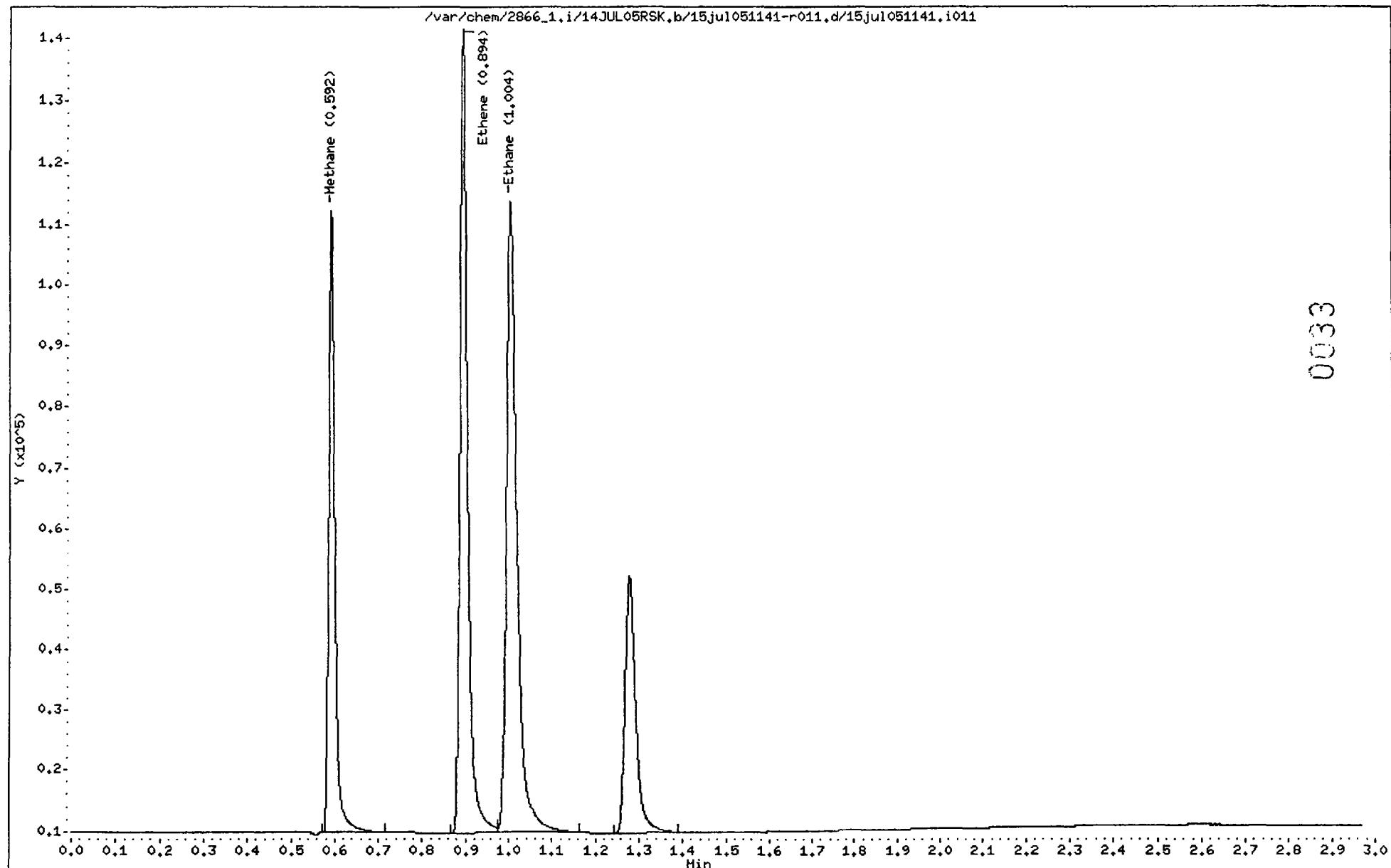
Sample Info: CCV,0714T4,1

Instrument: 2866_1.i

Operator: JKN

Column diameter: 0.32

Column phase: RTUPLOT



STL Burlington

Data file : /var/chem/2866_1.i/14JUL05RSK.b/15jul051141-r011.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 15-JUL-2005 11:51
Operator : JKN Inst ID: 2866_1.i
Smp Info : CCV, 0714T4, 1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/14JUL05RSK.b/cRSK175.m
Meth Date : 15-Jul-2005 13:58 wbr Quant Type: ESTD
Cal Date : 28-OCT-2004 14:00 Cal File: 28oct041316-r051.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/L)	ON-COL (ug/L)
1 Methane	0.592	0.605	-0.013	96886	73.0000	57 (M)
2 Ethene	0.894	0.888	0.006	163372	127.000	98
3 Ethane	1.004	0.999	0.005	176519	136.000	100

QC Flag Legend

M - Compound response manually integrated.

0034



RSK-175

RAW QC DATA

0035

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

ABLKT4

Lab Code: STLVT

Case No.: ROCKFORD SAS No.:

SDG No.: 238014

Matrix: (soil/water) WATER

Lab Sample ID: ABLKT4

Sample wt/vol: _____ (g/mL) ML

Lab File ID: 14JUL051413-R031

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. _____

Date Analyzed: 07/14/05

GC Column: RTUPLOT ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-82-8-----	Methane _____	2.0	U
74-84-0-----	Ethane _____	4.0	U
74-85-1-----	Ethene _____	3.0	U

Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r031.d

Page 2

Date : 14-JUL-2005 14:33

Client ID: ABLKT4

Sample Info: ABLKT4,0714T4,1

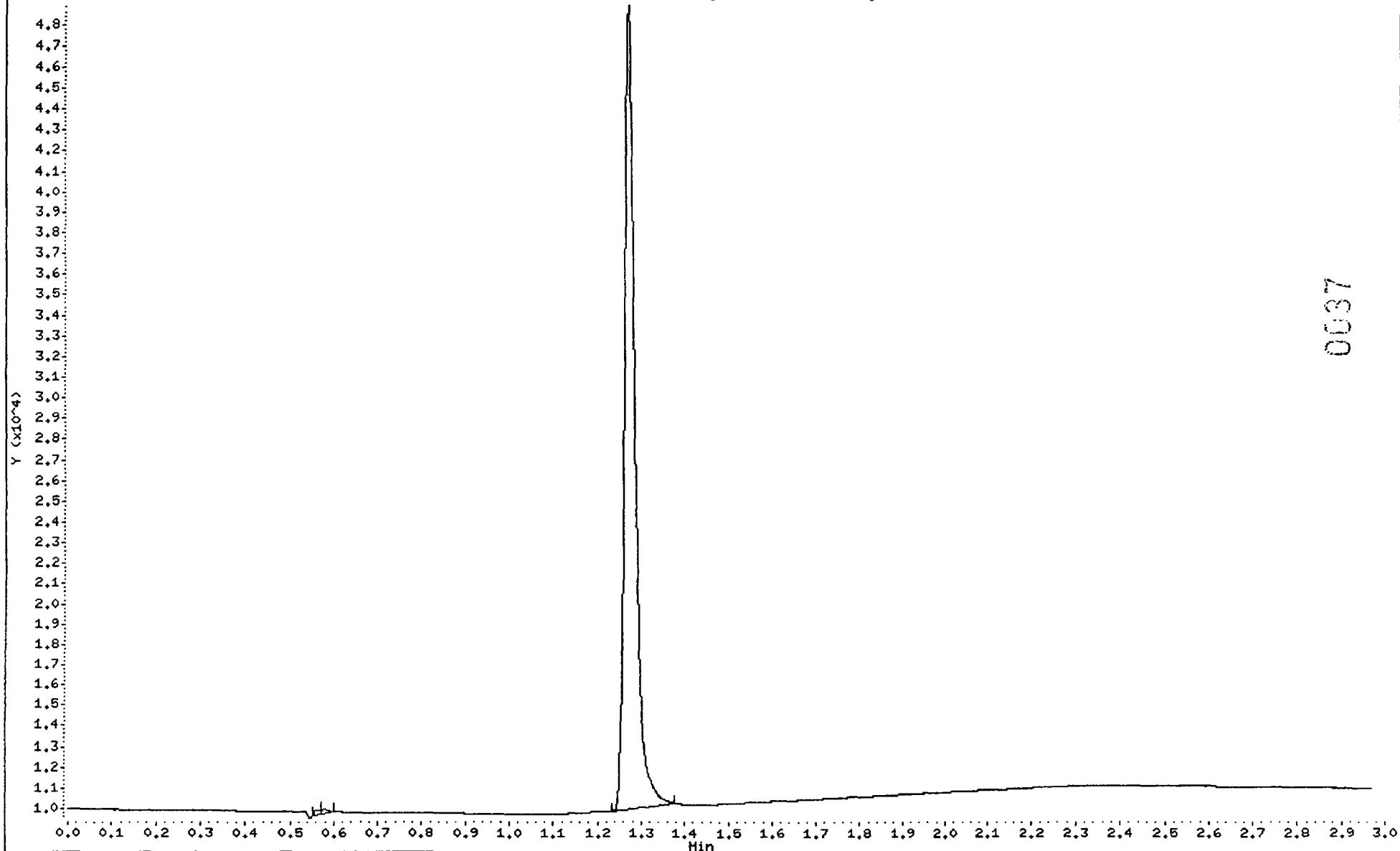
Instrument: 2866_1.i

Operator: JKN

Column diameter: 0.32

Column phase: RTUPLOT

/var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r031.d/14jul051413,i031



STL Burlington

Data file : /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r031.d
Lab Smp Id: ABLKT4 Client Smp ID: ABLKT4
Inj Date : 14-JUL-2005 14:33
Operator : JKN Inst ID: 2866_1.i
Smp Info : ABLKT4,0714T4,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/14JUL05RSK.b/cRSK175.m
Meth Date : 15-Jul-2005 13:58 wbr Quant Type: ESTD
Cal Date : 28-OCT-2004 14:00 Cal File: 28oct041316-r051.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN	FINAL
					(ug/L)	(ug/L)
1 Methane	Compound Not Detected.					
2 Ethene	Compound Not Detected.					
3 Ethane	Compound Not Detected.					

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: STL BURLINGTON

Contract: 25002

T4LCS

Lab Code: STLVT Case No.: ROCKFORD SAS No.: SDG No.: 238014

Matrix: (soil/water) WATER Lab Sample ID: T4LCS

Sample wt/vol: _____ (g/mL) ML Lab File ID: 14JUL051413-R021

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 07/14/05

GC Column: RTUPLOT ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
74-82-8-----	Methane	81	_____
74-84-0-----	Ethane	150	_____
74-85-1-----	Ethene	140	_____

Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r021.d

Page 2

Date : 14-JUL-2005 14:29

Client ID: T4LCS

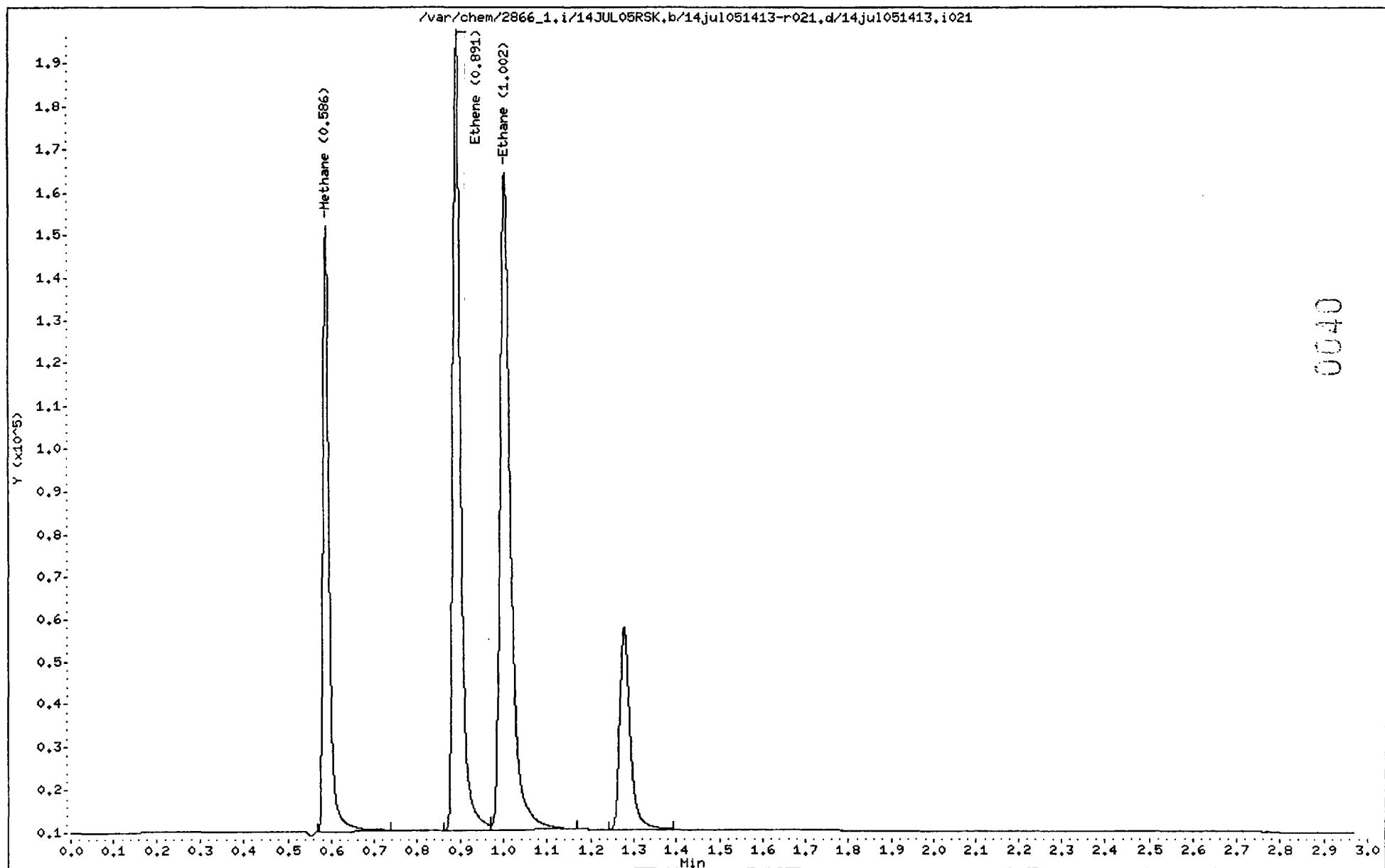
Sample Info: T4LCS,0714T4,1

Instrument: 2866_1.i

Operator: JKH

Column diameter: 0.32

Column phase: RTUPLOT



Data File: /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r021.d Page 1
Report Date: 15-Jul-2005 13:58

STL Burlington

Data file : /var/chem/2866_1.i/14JUL05RSK.b/14jul051413-r021.d
Lab Smp Id: T4LCS Client Smp ID: T4LCS
Inj Date : 14-JUL-2005 14:29
Operator : JKN Inst ID: 2866_1.i
Smp Info : T4LCS,0714T4,1
Misc Info :
Comment :
Method : /var/chem/2866_1.i/14JUL05RSK.b/cRSK175.m
Meth Date : 15-Jul-2005 13:58 wbr Quant Type: ESTD
Cal Date : 28-OCT-2004 14:00 Cal File: 28oct041316-r051.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: MeEtaEtewo.sub
Target Version: 3.50
Processing Host: chemsvr5

Concentration Formula: Amt * DF * 1 * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN	FINAL
					(ug/L)	(ug/L)
1 Methane	0.586	0.605	-0.019	137273	81.0997	81(M)
2 Ethene	0.891	0.888	0.003	232532	138.940	140
3 Ethane	1.002	0.999	0.003	260673	150.188	150

QC Flag Legend

M - Compound response manually integrated.

0041



**ORGANIC
SAMPLE PREPARATION**

0042

10f3

GC/MS INSTRUMENT RUN LOG
Instrument ID: VR-3600

Batch / Method ID: RSE-175		Channel: 5'	Device: Z866
Start Date: 10/28/04	Time: 1340	Calibration Std. Lot # AT-02-004-01	Chemserver Batch: Z80CTO4RSE
Close Date: 10/29/04	Time: 1340	ICV/LCS Lot # AT-02-003-08	

Injection Time	File Name	Client ID	ETR	Injection Number	Dilution Factor	Result Conc.	Analyst	Comments
1340	CAL 1	Initial Cal		1	1	—	JKN	Z80CTO4B16
1344	CAL 2			2		—		
1349	CAL 3			3		—		
1355	CAL 4			4		—		
1400	CAS			5		—		
1433	EGLCS	EGLC	MIA	C		—		
1438	EGLCS0	EGLCS0	↓	7		—		
1443	ADLUEC	ADLUEC	↓	8		—		
1528	S91757	JPZ0340	103092	1		✓		Z80CTO41511 k1
1533	S91758	JPZ0341		2		—		
1537	S91759	JPZ0342		3		—		
1544	S91760	JPZ0343		4		—		
1548	S91761	JPZ9997		5		—		
1553	S91762	AR25		6		—		
1559	S91763	JBW7326A		7		✓		
1604	S91763MS	JBW7326AMS		8		—		
1609	S91763MB	JBW7326AMSD		9		—		k2
1615	S91764	JBW7326CB		10		—		k1
1620	S91765	JBW7332		11		✓		↓
1626	S91766	JPZ0348		1		—		Z80CTO41624 k3
1630	S91767	JPZ0349	↓	2		—		k1
1635	S92305	227292-1	103164	3		—		
1641	S92307	-2		4		—		
1646	S92308	-3		5		✓		
1651	S92309	-4		6		—		
1657	S92310	↓ -5	↓	7		—		
1702	S92095	JBW8009	103138	8		✓		
1706	S92096	JBW9989	↓	9		—		↓

Legend: C=Complete • R=Reanalyze • RE= Re-Extract • ↑ = High • ↓ = Low • ✓=Reviewed and Acceptable

GC/MS INSTRUMENT RUN LOG

Instrument ID: VR-3600

ZGF3

Batch / Method ID: ZSE-175		Channel: 51	Device: Z866						
Start Date: 07/14/05	Time: 1424	Calibration Std. Lot # AT-07-005-04	Chemserver Batch: 14JUL05RSC						
Close Date: 07/15/05	Time: 1424	ICV/LCS Lot # AT-02-004-20							
Injection Log									
Injection Time	Lab ID	Client ID	ETR	File Name	Injection Number	Dilution Factor	Result Conc.	Analyst	Comments
1424	CCV	CCV	N/A	14JUL051413	1	1	✓	SKW	
1429	JULCS	JULCS	↓		2	1	✓		
1433	ABLU74	ABLU74	↓		3	1	✓		
1523	6277556	ASDM-3-063005	108187	14JUL051455	1	1	✓		
1528	6277557	ASDM-4-063005	↓		2	1	✓		
1533	6277598	MW G8 BR-A	108198		3	1	✓		
1539	6277599	-B	↓		4	1	✓		
1544	627600	-D	↓		5	1	✓		
1549	627601	-F	↓		6	1	✓		
1555C	627743	Z98343-1	108219		7	1	↑		CH4 > 1300
1559C	627744	-Z	↓		8	1	↑		CH4 > 420
1604	627752	-E	↓		9	1	↑		CH4 > 600
1647	627743	-I		14JUL051624	1	20	✓	K3	
1652	627744	-Z	↓		2	3	✓	K1	
1654	627752	-II	↓		3	40	✓	K3	
1723	627745	-3		14JUL051705	1	1	↑		CH4 > 1350
1728	627746	-4			2	1	✓		
1733	627747	-5			3	1	↑		CH4 > 700
1734	627748	-6			4	1	↑		CH4 > 1100
1744	627749	-7			5	1	↑		CH4 > 720
1748	627750	-8			6	1	↑		CH4 > 1000
1751	627751	-10	↓		7	1	↑		CH4 > 100, Ethene 71600
0859	F1366	TRUE	N/A	15JUL050824	1	1	✓		
0903	627745	Z98343-3	108219		2	20	✓	K3	
0908	627747	-5	↓		3	5	✓	K2	
0918	627748	-6	↓		4	10	✓	K3	
0923	627749	-7	↓		5	5	✓	K3	
0928	627750	-8	↓		6	10	✓	K1	
0934	627751	-10	↓		7	20	✓	K3	
1007	627768	Z98363-1	108220	15JUL050943	1	1	✓		

Legend: C=Complete • R=Reanalyze • RE= Re-Extract • ↑ = High • ↓ = Low • ✓=Reviewed and Acceptable

3df3

GC/MS INSTRUMENT RUN LOG

Instrument ID: VR-3600

Batch / Method ID:	Channel:	Device:
Start Date:	Time:	Calibration Std. Lot #
Close Date:	Time:	ICV/LCS Lot #

Legend: C=Complete • R=Reanalyze • RE= Re-Extract • ↑ = High • ↓ = Low • ✓ = Reviewed and Acceptable



SAMPLE HANDLING

0046

L400

PRIORITY SATURDAY

TRK# 6607 6560 5500 Form 0201

.05446 -VT-US

Deliver By:
02JUL05

XO BTVA AA

7-2-05
1130

**STL BURLINGTON
SAMPLE RECEIPT & LOG IN CHECKLIST**

Client: <u>STL LLC</u>	Date Received: <u>07.02.05</u>	Log In Date: <u>7-5-05</u>
ETR: <u>108187</u>	Time Received: <u>1130</u>	By: <u>BOB</u>
SDG: <u>238014</u>	Received By: <u>AC</u>	Signature: <u>Kristen Dusel</u>
Project: <u>25002</u>	# Coolers Received: <u>1</u>	PM Signature: <u>Kristen Dusel</u>
Samples Delivered By: <input checked="" type="checkbox"/> Shipping Service <input type="checkbox"/> Courier <input type="checkbox"/> Hand <input type="checkbox"/> Other (specify)		Date: <u>7/14/05</u>

List Air bill Number(s) or Attach a photocopy of the Air Bill:

COOLER SCREEN	YES	NO	NA	COMMENTS
Cooler screened with geiger counter and radioactivity is < 0.05 mr/hr	X			
There is <i>no</i> evidence to indicate tampering	X			
Custody seals are present and intact	X			
Custody seal numbers are present		X		
If yes, list custody seal numbers:				

Thermal Preservation Type: Wet Ice Blue Ice None Other (specify) _____

IR Gun ID:	25	Correction Factor (CF) =	-1.0	°C
Cooler 1:	8	°C	Cooler 6	°C
Cooler 2:		°C	Cooler 7	°C
Cooler 3:		°C	Cooler 8	°C
Cooler 4:		°C	Cooler 9	°C
Cooler 5		°C	Cooler 10	°C
		°C	Cooler 11	°C
		°C	Cooler 12	°C
		°C	Cooler 13	°C
		°C	Cooler 14	°C
		°C	Cooler 15	°C
		°C	Cooler 16	°C
		°C	Cooler 17	°C
		°C	Cooler 18	°C
		°C	Cooler 19	°C
		°C	Cooler 20	°C

Unless otherwise documented, the recorded temperature readings are adjusted readings to account for the CF of the IR Gun

EPA Criteria: 0-6°C, except for air samples which should be at ambient temperature and tissue samples which may be frozen.

Some client programs require thermal preservation criteria of 2-4°C. The PM must notify SM when alternate criteria is specified.

SAMPLE CONDITION	YES	NO	NA	COMMENTS
Sample containers were received intact	X			
Legible sample labels are affixed to each container	X			
CHAIN OF CUSTODY (COC)	YES	NO	NA	COMMENTS

COC is present and includes the following information for each container:

- | | |
|----------------------------------|---|
| ▪ Sample ID / Sample Description | X |
| ▪ Date of Sample Collection | X |
| ▪ Time of Sample Collection | X |
| ▪ Identification of the Sampler | X |
| ▪ Preservation Type | X |
| ▪ Requested Tests Method(s) | X |

SAMPLE INTEGRITY / USABILITY	YES	NO	NA	COMMENTS
The sample container matches the COC	X			
Appropriate sample containers were received for the tests requested	X			
Samples were received within holding time	X			
Sufficient amount of sample is provided for requested analyses	X			
VOA vials do not have headspace or a bubble >6mm (1/4" diameter)	X			
Appropriate preservatives were used for the tests requested	X			
pH of inorganic samples checked and is within method specification	X			

If no, attach Inorganic Sample pH Adjustment Form.

ANOMALY / NGR SUMMARY

Dusablon, Kris

From: Wright, Richard
Sent: Friday, July 15, 2005 9:56 AM
To: Dusablon, Kris
Cc: Young, Kirk
Subject: Secor - Sample Receipt Temperature

Per our conversation today, please proceed with RSK-175 analysis and reporting for STL Chicago Lab Job 238014. Samples were received in Burlington at 8 C.

Thanks, Dick

Richard Wright
Project Manager
STL Chicago
2417 Bond Street
University Park, IL 60466
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708-534-5211 fax
708-205-0462 cell
rwright@stl-inc.com
Leaders in Environmental Testing

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